

CAACTGGTAC TTGCCTGACT CAGGGTCACG AATGCTCCCA TTTGCCAAGA AAGCGCCACA	15240
GAGATAGGCA CGACCTGCTT CCTCATCCGA TAAAATCGCC TCATCAATAC CTGTTTCCAG	15300
GCCAAAGAAA GAGTCTGCCA AGTGCAAATC ACTTAACAAA TCCTGCACCT TTTCATCTGT	15360
AAAAACGGTA TAGACGCGAT TCTTGCGAAG ATTGCTCCGT TGGTGGTGAC GAATTTTCAGA	15420
TTTGATTTCA TAGAGATGGA GAAAGGACTC ATAGAGGTGA CGGGCCAGTT TGGCATT TTC	15480
TGTCACAACT GACAAAGTCA AGCCCGAAGT CGAGAGACCG ATGCTACCAG ACATTTTGAT	15540
AATGGCAGAT AATTCATGCC AGCTCAGATG GTGTTGGCCC AGGATTTCTT CTTTTACTGC	15600
TACTGTGAAA CTCATTTTTT CACCTGTATA ATGCGCATCA ACTCGTCCAC AATCAAATCT	15660
CCATCGTGGA AGGCACCGCC ATTTTCCAGA CGAAGGAAGT TAGATGAAAT CACGCGCGAA	15720
ACTTGCTTAC AAAGACCTAC AAAATCGTGT TCCACTTGCA CTAAGTATTC ATCAAAACGG	15780
TTGGAATTCA TGTATTCCTG AGGCACTTTT TCAATATTCA CCAAGACAGT GTCGATAAAA	15840
GGGCGACCAA GGTGACGATG CAAGACTTCC ACGTGGTCGC TATCTGTAAA GTGTTCCGTC	15900
TCCCCACGTT GGGTCATGAT ATTGCAGACA TAGGCAATTT CTGCCTTGGT TTCCAAAAGA	15960
GCCCGCCCAA TTTCCTTAAT CACGATATTG GGCAAATAG AGGTAAAGAG GGAACCTGGC	16020
CCTAGGACAA TCATGTCACT TTCAAGGATG GTCTGCACTA CTCGACGGCT GGCCAGAGGC	16080
GTATCATCGT TTAGGGCATT GGTCACATAG ACATTGTCAA TTATGCCTCG ATGGTCTACA	16140
ATATGACTCT CTCCAGCCAC TTCTGTCCCA TCCTGAAAGA CTGCATGAAG GGTCAAAGGA	16200
TGGTCACTGG AAGGATAAAT TTTCCCTGTT GTATGGAAAA ATTTGCTCAA TAACTGCATG	16260
GCATTATAGG TTGAACCCTG CATTTCTGAC AAGCCAGCAA TGATGAGATT TCCCAATGGA	16320
TGGCCAGCAA AGGCTCCGGC ATCCTCAGAG AACCGATACT GAAAGACCTT CTCATAAAAC	16380
TTAGGCATAT CCGACATGGC CACAAGGACA TTACGAAGAT CACCTGGCGG TGTCAACTGT	16440
TGCATATTTT TTCGGAGTTC ACCTGAAGAA CCACCATCAT CTGCCACCGT CACGATAGCT	16500
GCGATTTCCA CATCTTTTTC CCGCAGACTT TTTAGAATGA CGGGACTTCC AGTCCCTCCA	16560
CCAATCACCG TTATCTTTGG TTTTCTCATG AACGGTTTAC CGTTTCCTTT CTGCGGTCTT	16620
TGTCGCGATG CCCTTCATTA ACAGACCAAT TCTTGATAA GTCCTGCGCC AAGCGTTTAG	16680
CAAATGCCAC ACTACGGTGT TGTCCACCCG TACATCCCAT GGCAATGGTC AAAACGGACT	16740
TACCTTCCTT TTGGTAACTT GGCAGAATCG GCTCAATCAA GGCCAATAAA TGTTGATAAA	16800
AGTCTTCTGA CTCAGGATGG TTCATGACAT AATCATAAAC AGGTTCATCC ACACCCGTTT	16860
GGTTTCTCAG TTCTGGTAAA TAATAGGGAT TTGGCAAGAA ACGGACATCA AAGACCAAGT	16920

500

CCGCATCAAT	CGGGATTCCA	TACTTAAATC	CGAAAGACAT	GACTTCGATA	CGGAAAGACT	16980
GGGCTTGTTT	TTGGTCTGAA	AACTGCTCTG	CAAGGGTTTT	GCGCAGCTCA	CGTGGAGTGA	17040
GTTTCTGTCG	ATCCACCACA	TTTTGGCTCA	TATTTTTCAT	AGGTGCCAAG	AGTTCACGTT	17100
CCAACTTGAT	TCCATCTAAA	ATACGACCGT	CTGCTGCTAG	TGGGTGACTC	CGTCTGGTTT	17160
CCTTGTAACG	AGCGACCAAT	TCCTTATCAG	CCGCATCCAA	AAAGAGGATT	TTGAAATCCA	17220
AACCATCTTG	ATTTTCCAAC	TCATCCAAAA	CAGCTTGAAT	CTCTGAAAAG	AAAGAACGGC	17280
TACGCATATC	CACTACCAAG	GCCAACTTAG	GATTGTCTTC	CTTAATTTCA	ACCAGCTGCA	17340
AAAACCTTAG	CAAGAGAGCT	GGCGGCATAT	TATCAATGGT	GAAATAACCT	AGATCCTCGA	17400
AGGACTGAAT	GGCTACAGTT	TTCCCTGCGC	CACTCATCCC	TGTCACAATC	ACCAAGTGAA	17460
GTTGTTTCTT	TGTCATCTTT	TTCTCCTTAT	ATCAAAAAGAA	GTTTGGCAAC	ACCAAACTTC	17520
AACTAGCTTA	TCCAATCTCT	GCGATGACTT	CAATTTTCGAC	TTTTACATCA	CGAGGAAGAC	17580
GAGCTACCTC	CACAGCTGAA	CGAGCTGGGA	ATTCTCTCTT	GAAGGCCGTT	TGGTAAACCT	17640
CATTAAGAGG	AACAAAGTCG	TTCATATCGC	TCAAGAAGCA	AGTTGTTTTG	ACAACATGGT	17700
CAAAGTCTGT	TCCTGCTTCT	GCCAAAATAG	CACCGATGTT	TTTCAAGACT	TGCTCTGTCT	17760
GTTCTTGGAT	ATTCTCTCCT	ACAATTTCCC	CAGTTTCAGG	GGATAGGGGA	ACTTGACCGC	17820
TAGCAAACAA	AAGGTTGCCA	ACGATTTTTT	CTTGAACATA	GGGTCCGATA	GCCTTTGGGG	17880
CCTTATCTGT	ATGAATTGTT	TTTGCCATTT	TCTTTTCCTC	ACAATTTTTT	TAAGATTGCA	17940
TCCCAAGCCT	CATCCATCCC	TGCCTTACTG	ACAGATGAAA	AGAGGATGAA	ATCGTCACTC	18000
GGGTCAAAGT	TTAATTTCTT	TTTGATTGCT	GATTCATGCT	TGTTCCATTT	ACCACGAGGA	18060
ATCTTGTCCT	CCTTGGTCGC	CACAATGATG	ACTGGAATCT	CATAATACTT	GAGAAATTCG	18120
TACATCTGCA	CATCATCTGC	TGACGGGTCA	TGACGAAGGT	CAACTAGACT	GACAACCGCA	18180
CGGAGATTTT	CCCGAGTCGT	TAAGTACTCC	TCAATCATGC	ACCCCCACTT	TTCACGTTCC	18240
TTTTTTAGAAA	CACGAGCATA	GCCATAACCA	GGCACATCCA	CAAAGCGCAT	CTTGTCATCA	18300
ATGTTAAAAA	AGTTCAGGAG	CTGGGTTTTA	CCAGGTTTTT	CTGATGTACG	GGCGAGATTC	18360
TTACGGTTCA	ACATAGTGTT	GATAAAGCTG	GATTTACCAA	CATTTGAACG	CCCTGCTAGG	18420
GCAATCTCTG	GCAGTTCATC	CTGCGGATAG	TGGGACTTAT	TAGCTGCACT	GAGCAAGATT	18480
TCAGCATTGT	GTGTATTAAG	TTCCATAGTC	ACCTCTAGGC	TGTTTCTAGG	ATCGGTTTAT	18540
CCGTTCCATC	TACAGTTTCT	TTAGTGATGC	GAACCAATTT	CACATTTTCC	TGACTCGGCA	18600
CCTCAAACAT	GACATCTAGC	ATGGTTTCTT	CGATGATGGA	GCGAAGTCCA	CGCGCCCCTG	18660
TCTTCCGTTT	GATTGCTTTA	TTAGCAATCT	CTTGAAGGGC	TTCGTCGTCA	AATTCCAAC	18720

501

CAACATCATC	ATAAGAAAGC	AAGGTTTGGT	ATTGTTTCAC	CAAGGCATTT	CTTGGCTCTT	18780
TCAAGATGCG	AACCAAGTCA	TCAACGGTCA	ATTGCTCAAG	AGCCGCAAAA	ACAGGCAAGC	18840
GTCCAATCAA	CTCAGGGATA	ATACCAAATT	TTTGAATGTC	TTCAGCGATG	ATTTCTTGCA	18900
TGTATGAGCT	GTTTTTCGTCA	ATCGCCTTAT	TATTTTGACC	AAATCCGATG	ACTTTTTTCAC	18960
CCAGACGTTG	TTTGACAATT	TCTTCAATAC	CATCAAAAGC	ACCACCCACG	ATGAAGAGGA	19020
TATTTTTTGT	ATCCACTTGA	ATCATCTCTT	GTTGTGGATG	TTTGCGTCCA	CCTTGAGGCG	19080
GTACGCTAGC	AACAGTTCCC	TCAATAATCT	TGAGAAGGGC	TTGTTGCACC	CCTTCACCAG	19140
AAACATCACG	TGTGATAGAC	ACATTCTCAC	TCTTCTTGGC	AATCTTGTCA	ATTTTCATCCA	19200
CATAGATAAT	GCCACGCTCT	GCACGTTCTG	TGTTAAAGTC	AGCAACCTGC	AAGAGTTTGA	19260
GGAGGATATT	TTCCACATCC	TCACCCACAT	AACCAGCCTC	CGTCAGAGCT	GTCGCATCCG	19320
CAATAGCAAA	AGGTACATTC	AAGCTCTTAG	CCAAGGTCTG	GGCAAGGAAA	GTTTTCCCTG	19380
AACCAGTTGG	GCCAATCATC	AAAATGTTTG	ACTTCTGCAA	ATCCACATCT	TCTGACTCTT	19440
CGCGTGTATC	GTGGAAATTG	ATGCGTTTGT	AGTGGTTATA	AACCGCCACT	GCCAAGGCAC	19500
GCTTGGCACG	ATCTTGACCA	ATTACATAGT	GGTTCAAGAT	ATGGAGGAGT	TCAATTGGTT	19560
TTGGCACCTC	AGACAAGTCT	GCCAAGACTT	CCTCAACCAA	TTCTTCTCGA	ATGATTTCCCT	19620
GAGCTAACTC	CACGCATTCA	TTACAAATAA	AAGCATTGTT	GCCAGCAATT	ATTTTTTTGTA	19680
CTTCTTCTTG	GTTTTTGCCA	CAAAATGAGC	AATAAACCAT	CATATCATTT	TTTCTATTTG	19740
TAGACATGAT	TTCCTTCCAT	TCTATACTGT	CATTCTATCT	AAAATAAGGT	CATGTAAAAA	19800
GCATGAATAC	TATTGACCAG	ATTGGTAAAG	GCATTTAACC	AAAGGAGGAT	AGAAAGCCCG	19860
TAACGCTTTT	TACGAAAAGC	TTGTGCTCCT	GCCAGAAAGC	AGATGAAACA	CAGAAAAGCC	19920
GTGAATAGAC	CAAATAAACT	CCGTTCCATT	AGACTTCCTT	TCTCTTGCGG	TATTGGATGG	19980
TAAAATCATA	AGGATTCTTC	TCATCTTTGG	CGTAAAATTT	GCTTGAAACT	GTCTCAAAAA	20040
GAGACAAGTC	AAGTTCTTCA	GGGAAATAGG	TATCTCCTTC	CACCCGAGCA	TGAATGTGAG	20100
TGACAATCAC	TTCATCAAGG	TAAGGTTCAA	AAGCCTGAAA	AATTTGCTTC	CCACCGATAA	20160
TGTAGAGATT	CTTTTCTTGA	GCCTGATACC	AGTCAAGAAC	AGACTGGACG	TCCTGAAAAG	20220
TAGCAACCCC	ATCTATCTTT	TCTTCCGGAT	TACGCGTCAA	AATCAAGGTT	TCCCGTTTTG	20280
GAAGCAAGCG	ACGCCCCATC	CCATCAAAGG	TCACACGCCC	CATCAAGATA	GCATGATTCA	20340
GAGTTGTTTC	TTTAAAGTGC	TGCAATTCTG	CTGGCAAATG	CCAAGGCAGA	CGATTTTCCT	20400
TACCAATCAC	ACCCTCTTCA	TCCTGGGCCC	AAATAGCTAC	GATTTTCTTA	GTCATGCTTC	20460

502

CATCCTTTTC	ACTGATAGTA	CTATTTTATC	AAAAAACTCA	AAAAAAGACT	GGTTTGGAAT	20520
AGCTTACAAA	ATAGAAAAAA	TCTGTAAGAA	ATTTCCCTACA	GATTTATCTA	TGTTTCCTTA	20580
TTTCTTACAA	ACCAGGTGCT	TGTCCAAGTT	CGGCTGCAAG	CATCCAAATT	GTTTTATCTG	20640
TTTCAGTTTT	AGCGCCTGCA	AAGATACCGT	TTGTACACATC	GTCACCTTCT	TCATCAGTGA	20700
CATCCAAACC	TTTTTGGAAA	AGTTCTGACA	AGTAACGGTA	GATAACAAGA	ACACGTTCCA	20760
AGCTTTCTTC	AACATTACGG	TATTCACCAG	CTTCTTCTTC	GATTTCACTA	TTTTGAAGGA	20820
ACTCTGTCAA	TGTAGAGAAT	GGGCTTCCAC	CGAGTGTAAT	CAAGCGTTCA	CTGATTTTCA	20880
CCAATTGACC	GTCAAGAGCT	TCCATGTACT	CATCCATTTT	TGGATGCCAT	ACAAGGAAAC	20940
CACGACCATG	CATATACCAG	TGCACTTGGT	GCAAAGCAAC	GTGAGCTACA	TACAAATCAG	21000
CAACAGCTTG	GTTCAAGACT	TCCTTTGTTT	TTGCCAATGC			21040

(2) INFORMATION FOR SEQ ID NO: 56:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2387 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 56:

ATTCTTAATA	CGATTAAAAG	GCTTATTACT	AAAAGAAAAT	TTCAGTTAGA	TGAACTAAAC	60
TTGCTCGTCA	AATCCCGATT	TAACGAGATG	TTTGGGGAAA	ATAAAATATT	TGAAAGCATT	120
GATAACTTAT	TTGATATTAT	AGATGGTGAT	AGGGGCAAAA	ATTATCCTAA	ATCAGATGAG	180
TTGTTTAGTG	AGGAGTACTG	TTTATTTTTA	AATACAAAGA	ATGTTACTAA	AAACGGATTT	240
TCATTCGATA	CAAAGCAATT	TATCACTAAA	ACAAAGGATA	AATTACTTCG	AAAAGGCAAA	300
CTTGAGCGTT	ATGATATAGT	CTTGACAACA	AGAGGTACTG	TTGGAAATGT	AGCGTACTAC	360
GATGAATTAA	TAAAATATAA	ACATTTACGT	ATAAATTCAG	GTATGGTAAT	ATTACGTCCC	420
AAGACACCAA	ATCTAAATCA	GAAATTTATT	ATCCATGTTT	TAAGGAATAA	TAATTATAGT	480
CGAGTGATAT	CAGGAAGTGC	TCAGCCTCAG	TTACCAATTA	CAAAATTAAA	AAAAATACTT	540
CTCCCCCTCC	CCCCACTAGC	CCTCCAAAAT	GAGTTCGCAG	ACTTTGTAGT	CCAGGTCGAC	600
AAATCACAAT	TGGCAATCCA	AAAATCTCTG	GAAGAACTTG	AACTTTTGAA	GAAATCTCTG	660
ATGCAGGAGT	ATTTTGGCTG	ATATTCTGCC	ATTGTAATTA	CGGTAATGAT	TTGTTATAAT	720
ACTTCAAAGG	AGGAAATCAG	ATGGTAGTAA	AAACAAGAAA	ACAAGGAAAT	TCAATCACCA	780
TTACGATTCC	AAGTGAATTT	AATATTCCAA	GTGGTGTTAA	ATACGAAGCG	AAATTGTTAC	840

503

CAAGTGGTGA GATTATCTTT ACTCCTGAAG AATTGGGGCA GCAGGTTTCT TATGTATCTG	900
ATGATGCCTT TGACTTAAAT TTAGATAAAA TATTTGACGA ATACGACGAT GTTTTCAAAG	960
CTTTGGTGGA AAAATGACAA TCTATTTGAC AGAAAAGCAA ATTGAAAAAA TAAATGCTTT	1020
AGCAATTCAA CGGTATTCTC CAAATGAGAA AATTCAAACA GTTAGTCCTT CTGCCTTAAA	1080
TATGATTGTG AACTTACCAG AACAATTTGT CTTTGGGAAG CCTCTTTATC CAACAATTTT	1140
TGATAAAGCA ACGATACTAT TTGTCCAATT GATAAAGAAG CATGTTTTTG CTAATGCTAA	1200
TAAAAGAACT GCTTCTTCG TTTTGGTCAA ATTTTACAA TTAAACGGCT ATCGTTTTTC	1260
TGTAACGGTA GAAGAAGCAG TAAAAATGTG TGTAACCATC GCAGTAGAAG CTTTAACTGA	1320
TGAAAAAATG ACAAGCTACT CCAAATGGAT TTCTGAACAT TCTGTTAGAG AAAAGGTCAA	1380
AAAGTAACCT AGTATGCTGG ATTTGAATGA GCACAAGAAA ATAAATGAAC AGACAATATT	1440
AGAATTCTGT AATGCAGAAA CTGATATTGT CTC'TTTTTAT TGATGAATAA GAAAGTGAGA	1500
AATTATGGAA TCAAAAGTTA CAATTATCAT GCAAGAAATG TTACCTCTTT TAAATAATGA	1560
ACAATTACTA GCGTTGAGAG AGAGTTTAGA ACATCATCTA GTAGACGGAA AAAAGCAGCA	1620
GAAGTATTCG AATAATAACC TGTGCAACT ATTTATTACC GCCAAGCAGG TAGAGGGCTG	1680
TAGCTCAAAA ACAATTCGTT ATTATCAGAG GACGATTGAA AACTTGTTTA ATGCTATTAA	1740
AGAGTCTGTG ACACAACTCA CAACAGATGA TTTAAGGAGT TATTTAGCAA ATTACCAGTC	1800
TGAAAAGGAT TGTAGTAAGG CAAATTTAGA CAATATTAGG CGTATATTGT CTTCTTTTTT	1860
TGCTTGGCTT GAGCAAGAGG ATATATCATT AAAATTCCCA TTCGACGGAT ACAGAAAATT	1920
AAGACTGAGC AAAATGTGAA GGAACTTAT ACTGATGAAC ATTTGGAAAT TATGCGTGAT	1980
AACTGTGAAA ATTTGAGAGA TTTGGCAATA ATAGACCTAC TAGCATCGAC AGGTATGCGT	2040
GTAGGGGAGC TTGTACAGTT GAATCGTTCA GATATTGATT TTGAAAACAG AGAGTGTGTT	2100
GTCTTTGGTA AAGGAAAGAA GGAGAGACCA GTATATTTTG ACGCTCGTAC GAAAATTCAT	2160
TTAAGAAATT ATCTTAACGA CAGAAAAGAT AGTCACCCTG CTCTTTTTGT AACGCTAGTT	2220
GGAAAAGTCC AGAGGCTTGG AATTGCTGGT GTAGAGATTC GCTTAAGAAA GTTAGGAGAC	2280
AAACTCGGCA TACAAAAGGT TCACCCACAT AAGTTCAGAA GAACTTTAGC GACTAAGGCA	2340
ATTGATAAAG GTATGCCTAT CGAACAAGTC CAAAACTGC TAGGTCA	2387

(2) INFORMATION FOR SEQ ID NO: 57:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10669 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double

504

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 57:

ATATTAAAGC GACTTTCTGT GCGCTAGGGA AAAATGTTCC TGGGAATGAG GACTTGGTGA	60
AGAGGATAAA ATCTGAAGGT CATGTTGTTG GAAACCATAG CTGGAGCCAT CCGATTCTCT	120
CGCAACTCTC TCTTGATGAA GCTAAAAAGC AGATTACTGA TACTGAGGAT GTGCTAACTA	180
AAGTGCTGGG TTCTAGTTCT AAACATCATG GTCCACCTTA TGGTGCTATT ACAGATGATA	240
TTCGCAATAG CTTGGATTTG AGCTTTATCA TGTGGGATGT GGATAGTCTG GACTGGAAGA	300
GTAAAAATGA AGCATCTATT TTGACAGAAA TTCAGTATCA AGTAGCTAAT GGCTCTATCG	360
TTTTGATGCA TGATATTCAC AGTCCGACAG TCAATGCCTT GCCAAGGGTC ATTGAGTATT	420
TGAAAAATCA AGGTTATACC TTTGTGACCA TACCAGAGAT GCTCAATACT CGCCTAAAAG	480
CTCATGAGCT GTACTATAGT CGTGATGAAT AAGCAAGAAA AAATAGGTCT GTTAGATATT	540
TGACAGACTT ATTTTTTACA GAATATAGTA CTAATTAAAA AATGTTTTAT GCTATAATTG	600
ATGAATAAAA TAGAAGGAGA AGCATATGAA TACCTATCAA TTAAATAATG GAGTAGAAAT	660
TCCAGTATTG GGATTTGGAA CTTTTAAGGC TAAGGATGGA GAAGAAGCCT ATCGTGCAGT	720
GTTAGAAGCC TTGAAGGCTG GTTATCGTCA TATTGATACG GCGGCGATTT ATCAGAATGA	780
AGAAAGTGTT GGTCAAGCAA TCAAAGATAG CGGAGTTCCA CGTGAAGAAA TGTTTCGTAAC	840
TACCAAGCTT TGGAATAGTC AGCAAACCTA TGAGCAAACCT CGTCAAGCTT TGGAAAAATC	900
TATAGAAAAA CTGGGCTTGG ATTATTTGGA TTTGTATTTG ATTCATTGGC CGAACCCAAA	960
ACCGCTCAGA GAAAATGACG CATGGAAAAC TCGCAATGCG GAAGTTTGGG GAGCGATGGA	1020
AGACCTCTAT CAAGAAGGGA AAATCCGTGC TATCGGCGTT AGCAATTTTC TTCCCATCA	1080
TTTGATGCC TTGCTTGAAA CTGCAACTAT CGTTCCTGCG GTCAATCAAG TTCGCTTGGC	1140
GCCAGGTGTG TATCAAGATC AAGTCGTAGC TTAGTGTGCT GAAAAGGGAA TTTTATTGGA	1200
AGCTTGGGGG CCTTTTGGAC AAGGAGAACT GTTTGATAGC AAGCAAGTCC AAGAAATAGC	1260
AGCAAATCAC GGAAAATCGG TTGCTCAGAT AGCCTTGGCC TGGAGCTTGG CAGAAGGATT	1320
TTTACCACTT CAAAATCTG TCACAACCTC TCGTATTCAA GCTAATCTTG ATTGCTTTGG	1380
AATTGAACTG AGTCATGAGG AGAGAGAAAC CTTAAAAACG ATTGCTGTTC AATCGGGTGC	1440
TCCACGAGTT GATGATGTGG ATTTCTAGAA AATCATAAAA AGAATTGTAC ATTATTCTAA	1500
TTTTTGATAT AATAGTCAGC AGGAAAGAAA GTCTTATGGC GTTCTTCAAG CGAGCTTGGG	1560
ATAGTGGGAG CCAAGTAGGG CAAAATAAAG GGCTGGCGCT TTCTGTAGTA TTTTCAAAAA	1620

505

CAATGAAGTA ATAAATTAGG GTGGAACCGC GTTTCTGACG CCCCTAGGTT AAATCAACCT	1680
AGGATTGTCA GATGTGGTTC TTTTGCTTAT TCAGTCTATT GTGTGAAAGA AAGGAGAGCC	1740
GTGGACAACC TTTATCTTGT AAAAGACGAT AGTCAACTAG CTACATTTTCG TGATTTTGTA	1800
GTAAGAAATA CTGAAAAGTT GAAAGATTAT CAATCTTTTT TAAAGAATGA ACTTGCAGTC	1860
TGTGATTTAC CGCAAGCTGT TATTTGGTCA GATTTTAATG CTGCTACACA GATTATTAGG	1920
GAAAGTGCTG TTCCAACCTA TACAAATAAT AGACGAGTGG TTATGACGCC TGATTTAGCT	1980
GTTTGGAAG AATTGTATTT GTATCAGTTG ATGGACTACG AGTGTTCCTGA GCAAACCTCAA	2040
GCAATAGAAA GTCACATCA TTCTTTATCT GAAAATTTCC TCTTACAGAT TGTAGGACAT	2100
GAGTTAGCTC ATTGGTCGGA CATTTTTTAG ATGATTTTGA TGGTTATGAC TCTTATATCT	2160
GGTTCGAAGA GGGGATGGTT GAATATATTA GTCGCAAGTA TTTCTTGACA GAAGAGGAAT	2220
TTCAAGCGGA AAAAATTTGT AATCAATCTC TCGTAGAACT TTTTCAGAAG AAGTATAGTT	2280
GGCATTCATT GAATGATTTT GGTTCCTCGA CTTATGATAA GAACTATGCA AGTATTTTTT	2340
ATGAATACTG GCGCAGCTTT TTGACAGTAG ATAAGTTGGT AGAAAATTTA GGTAGTGTAC	2400
AAGCGGTCTT AGATTCCTAT CATTTATGGG CAAATACAGA AAAAATTTT CCCTTGTTAG	2460
ATTGGTTTGT TCAGCAGAAA TTAATTGAAA AAGAAATATA AAAACTAAAG GAGTAAACAA	2520
TGTCTAAGAA ATTAACATTT CACTGCATCA GTGGCAGAGA CCTCCTTACA GTCGGGCTGC	2580
TCCACGCTCA GCACTAGAGT GCCTGAGCTA GACGCAGTAC TAACTCGTCT TGCCTCGTAT	2640
GATCGACGAG GCAGACTCGT GTCGCAAGTA ATTATTTTTT ATTAAGGAGT ATTCAATGTC	2700
TAAGAAATTA ACATTTCACT GCGTCAGTGG CAGAAACCTC CTTACAGTCG GACTGCCCTA	2760
CGCTCAGCAC TAGAGTGCCT GAGCTAGACG CAGTACTAAC TCGTCTTGCC TCGTATAATC	2820
GACGAGGCAG ACTCGTGTCT CAAGAAATTA TTTTTTATTA AGGAGTATTC AATGTCTAAG	2880
AAATTAACAT TTCAAGAAAT TATTTTGACT TTGCAACAAT TTTGGAATGA CCAAGATTGT	2940
ATGCTTATGC AGGCTTATGA TAATGAAAAA GGTGCGGGGA CAATGAGTCC TTACACTTTC	3000
CTTCGTGCTA TCGGACCTGA GCCATGGAAT GCAGCTTATG TAGAGCCATC ACGTCGTCCT	3060
GCTGACGGTC GTTATGGGGA AAACCTAAC CGTCTCTACC AACACCACCA ATTCCAGGTG	3120
GTCATGAAGC CTTCTCCATC AAATATCCAA GAACTTTACC TTGAGTCTTT GGAAAAATTG	3180
GGAATCAATC CTTTGGAGCA CGATATTCGT TTTGTTGAGG ACAACTGGGA AAACCCATCA	3240
ACTGGTTCAG CTGGTCTTGG TTGGGAAGTT TGGCTTGACG GAATGGAAAT CACTCAGTTC	3300
ACTTATTTCC AACAAGTCGG TGGATTGGCA ACTGGCCCTG TGAAGTCGGA AGTTACCTAT	3360

506

GGTTTGGAGC	GCTTGGCTTC	TTACATTCAA	GAAGTAGACT	CTGTCTATGA	TATCGAGTGG	3420
GCTGATGGTG	TAAAATACGG	AGAAATCTTT	ATCCAGCCTG	AGTATGAGCA	CTCAAAATAT	3480
TCATTTGAAA	TTTCGGACCA	AGAAATGTTG	CTTGAAAAC	TTGATAAGTT	TGAAAAAGAA	3540
GCTGGTCGTG	CATTAGAAGA	AGGCTTGGTA	CACCCTGCCT	ATGACTATGT	TCTCAAATGT	3600
TCACATACCT	TTAATCTGCT	TGACGCGCGT	GGTGCCGTAT	CTGTAACAGA	GCGTGCAGGC	3660
TATATCGCTC	GTATCCGTAA	CTTGGCCCGT	GTCGTAGCCA	AAACCTTTGT	CGCAGAACGC	3720
AAACGCCTAG	GCTACCCACT	TTTGGATGAA	GAAACAAGAG	CTAAACTCCT	AGCAGAAGAC	3780
GCAGAATAAA	GAGAGTGACA	AATTACGAAA	ATGGGCGAAC	AGAGTGAGCC	CTGAGCCAGT	3840
TGCCGCAGTG	ATGAAGGTAT	CCTTAGTGAA	ACTAAGGATA	CTAGGCAAAA	TTGGAGACTT	3900
TTGGCTCCAA	TTTTAGCAAT	GAAACAACGA	AGTTGGTTGC	TTGCGTGCCA	ATCACATAAG	3960
GCAAACTGGA	AAATAAAAAG	ATACTTTTCG	GAGAAAAAAC	ATGACAAAAA	ACTTATTAGT	4020
AGAACTCGGT	CTTGAAGAAT	TACCAGCCTA	TGTTGTTACG	CCAAGTGAAA	AACAACTAGG	4080
CGAAAAAATG	GCAGCCTTCC	TCAAGGGAAA	ACGCCTGTCT	TTTGAAGCCA	TTCAAACTTT	4140
CTCAACACCA	CGTCGTTTGG	CTGTTCTGTG	AACTGGTCTT	GCAGACAAAC	AGTCTGATTT	4200
AACAGAAGAT	TTCAAGGGTC	CAGCAAAGAA	AATTGCCTTA	GATAGTGATG	GAAACTTCAC	4260
CAAAGCAGCT	CAAGGATTTG	TCCGTGGGAA	AGGTTTGACT	GTTGAAGATA	TCGAATTCCG	4320
TGAAATCAAG	GGTGAAGAAT	ATGTCTATGT	CACTAAGGAA	GAAATTGGTC	AAGCAGTTGA	4380
AGCCATTGTT	CCAGGCATTG	TGGATGTCTT	GAAGTCACTG	ACTTTCCCTG	TCAGCATGCA	4440
CTGGGCGGGA	AATAGCTTTG	AATACATCCG	CCCTGTTTAC	ACTTTAACTG	TTCTCTTGGA	4500
TGAGCAAGAG	TTTGACTTGG	ATTTCCCTGA	TATCAAGGGA	AGTCGTGTGA	GTCGTGGCCA	4560
TCGTTTTTTG	GGACAAGAAA	CCAAGATTCA	GTCAGCATTG	AGCTATGAAG	AAGACCTTCG	4620
TAAGCAGTTT	GTAATCGCAG	ATCCATGTGA	ACGTGAGCAA	ATGATTGTTG	ACCAAATCAA	4680
GGAAATTGAG	GCAAAACATG	GTGTACGTAT	CGAAATTGAT	GCGGATTTGC	TGAATGAAGT	4740
CTTGAATTTG	GTTGAATACC	CAACTGCCTT	CATGGGAAGT	TTTGATGCTA	AATACCTTGA	4800
AGTTCCAGAA	GAAGTCTTGG	TGACTTCTAT	GAAGGAACAC	CAGCGTTACT	TTGTTGTTTCG	4860
TGATCAAGAT	GGAAAACCTC	TGCCAAACTT	CATTTCTGTT	CGTAACGGAA	ACGCAGAGCG	4920
TTTGAAAAAT	GTCATCAAAG	GAAATGAAAA	AGTCTTGGTA	GCCCCTTGG	AAGACGGAGA	4980
ATTCTTCTGG	CGTGAAGACC	AAAAATTGGT	GATTTTCAGAT	CTTGTTGAAA	AATTAAACAA	5040
TGTCACCTTC	CATGAGAAGA	TTGGTTCTCT	TCGTGAACAC	ATGATTCGTA	CGGGTCAAAT	5100
CACTGTACTT	TTGGCAGAAA	AAGCTAGTTT	GTCAGTGGAT	GAAACAGTTG	ACCTTGCTCG	5160

507

TGCAGCAGCC	ATTTACAAGT	TTGACTTGTT	GACAGGTATG	GTTGGTGAAT	TTGACGAACT	5220
CCAAGGAATT	ATGGGTGAAA	AATACACCCT	TCTTGCTGGT	GAAACTCCAG	CGGTGGCAGC	5280
TGCTATTCGT	GAACACTACA	TGCCCTACATC	AGCTGAAGGA	GAACTTCCAG	AGAGCAAGGT	5340
CGGCGCAGTT	CTAGCCATTG	CAGACAAATT	GGATACGATT	TTGAGTTTCT	TCTCAGTAGG	5400
ATTGATTCCA	TCAGGTTCTA	ATGACCCTTA	TGCCCTTCGT	CGTGCAACTC	AAGGTGTGGT	5460
TCGTATCTTG	GATGCCTTTG	GTTGGCACAT	TGCTATGGAT	GAGCTGATTG	ATAGCCTTTA	5520
TGCATTGAAA	TTTGACAGTT	TGACTTATGA	AAATAAAGCA	GAGGTTATGG	ACTTTATCAA	5580
GGCTCGTGTT	GATAAGATGA	TGGGCTCTAC	TCCAAAAGAT	ATCAAGGAAG	CAGTTCCTGC	5640
AGGTTCAAAC	TTTGTTGTGG	CAGATATGTT	GGAAGCAGCA	AGTGCTCTCG	TAGAAGTAAG	5700
CAAGGAAGAA	GATTTTAAAC	CATCTGTTGA	ATCACTTTCT	CGTGCCTTTA	ACCTGGCCGA	5760
GAAGGCAGAA	GGGGTTGCTA	CGGTTGATTG	AGCACTATTT	GAGAATGACC	AAGAAAAAGC	5820
TTTGGCAGAA	GCAGTAGAAA	CACTCATTTT	ATCAGGACCT	GCAAGTCAGC	AATTGAAACA	5880
ACTTTTTCG	CTTAGCCCAG	TCATTGATGC	TTTCTTTGAA	AATACTATGG	TAATGGCTGA	5940
AGATCAGGCT	GTCCGTCAAA	ATCGTTTGGC	AATCTTGTC	CAACTAACCA	AGAAAGCAGC	6000
TAAGTTTGCT	TGTTTAAACC	AAATTAACAC	TAAATAAAAT	TTGATAAACG	GACTTTATCT	6060
TATTACAAAG	GAGAAGAAAT	GGATCCGAAA	AAAATTGCTC	GTATCAATGA	GCTTGCTAAA	6120
AAGAAAAAAA	CAGAAGGCTT	AACACCAGAA	GAAAAAGTGG	AACAAGCCAA	ACTACGTGAG	6180
GAGTACATCG	AAGGTTATCG	CCGCGCTGTT	CGTCACCACA	TTGAAGGAAT	CAAAATTGTG	6240
GACGAAGAAG	GAAACGATGT	TACACCAGAA	AAACTACGCC	AAGTACAACG	TGAAAAAGGA	6300
TTACATGGCC	GTAGTCTTGA	TGATCCAAAT	TCATAATAAT	ACTCTTCGAA	AATCAAATTC	6360
AAACCACGTC	AGCTTCACCT	TGCCGTACTT	AAGTACAGCC	TGCGGCTAGC	TTCCTAGTTT	6420
GCTCTTTGAT	TTTCATTGAG	TATATGTATT	CTTCTTTTTC	ACAAAGATAG	ATGAAACGAT	6480
AACAAAGAGA	CTAGCAGTTT	GTGTTTGCTA	GTCTTTTTTC	GCTAAAAAAG	GAACCATAAT	6540
GGTTCCTAAA	AACTATCATT	AGTAACTTGC	ACCGGCTGTA	GCGTCTGCGT	CACCACCGTG	6600
GCCTCCAGCA	TCCCCTGAAT	CAGAAGCGCC	AGAAGTAGCA	TCGGCGTCTC	CATGACCTCC	6660
GGCAGCAGGA	GCAAATGGTC	CGCTACCACC	CACCAAACGT	TGACCAGTCT	CTTTTAGGTA	6720
CCAGTCAAGC	CATGGTTGGA	AGTTAAAGAC	GATTTTCATTG	ATACCAGCGT	ATGATCCATC	6780
AGGATAGTAC	ATTGCTTGGT	AGTTGTGAGT	GTTGATAACA	CCTGCAGGAG	AACCTGGAAC	6840
GATCGTACGG	ACGTATTCCT	GGTTTCCGTT	GCGAAGTGTT	CCGATAACCC	ACTCTACGTT	6900

508

CTTCATACGT	GCTGGTGGAA	GAGAACCATG	AACAGTCGAC	ATACGGCTAC	CTGATTGAGG	6960
TGGTACACGT	TTAGCGAACA	TAGTGTCTGG	ATCTTGGTGA	GCGTTGTTGT	AGTAGAGGAA	7020
TTGGTTGTTG	TCGTCAGCGT	ATGTCAATTC	AAATGGCATA	GCTTTCAAGA	ACATATCAAT	7080
TTGGTTAACT	GTTAGGATAC	CGTGGTCCAA	TTTGACATAG	GTATCACCAG	AAACAGCACC	7140
AGTGAATGCT	GCAACTTTTT	CTACCCATTC	TGGATCGTCA	GGGTCAACTT	CTGTGATGGT	7200
TGTAGCGATT	GGTTTTCCAC	AATCCAAGTC	TTCTGATTCT	ATTGGTTTTG	GTTTTTTCAA	7260
TTTCGAAACG	ACTCCTACGT	ATTTAACAAA	GTTATCTAAG	CAAGTTTCAA	GGAATTTAAC	7320
AGTGCCTTCG	TTGGTGATAT	TTCCGTTGTT	ATCAAAAGCT	TCCTTAGCTT	TACCAAGAAG	7380
GAATTCGTTA	CCTGGAAGCG	TGTAGGCATT	AACACCTGGA	GCATCAAGGA	TTTTACGAAG	7440
GTGAACTTGA	GCACGTGATG	TTCTTGGTTC	ATAGTATGAT	GCACCCACAA	TCATAACAGG	7500
CTTGTTTTCA	AATGGATGAA	CTTCGTATGA	AAGCCATTCA	AGTACAGATT	TGAGTGAAGC	7560
TGAGATAGTG	TGGTTATGCT	CAGGAGTAGC	AATGATAACA	CCATCTGCAC	GAGTAATTTT	7620
GTTATATAAA	TAACGTAATT	GGAAACTTTC	ATCCCATTTT	TCATCTTGGT	TAAACATTGG	7680
AACTTCGTCA	ATTTCAAGAA	CTTCTAATTC	AAATTTGAGT	TTGAAGTAGC	GACGGATAAA	7740
TTCCAAGAGC	TTACGGTTAT	ATGATTGATC	GTAGTTTGAT	CCAACAAGTC	CAACAAATTT	7800
CATTCTTTTT	GGTCTCCTAT	CTTACAAATT	TTCCCAGTCA	AAGTCTTCAG	CATCTTTGCG	7860
AAGTAATTCT	TGTGCATTAC	GTAATTTTTT	TGTGATTTTT	ACAAAGATAC	GGAAGTCATC	7920
AAAGATGGCA	TCCAATTTCT	TGATAACATC	AAGGTCAACC	AAGTCGCCAC	TTGGGTAAAA	7980
TGCTTGAAGA	GAGTGTGAGA	GCAAGAATTC	ATCTGGAAGA	ACATTTGCCT	TGATTTTCAGG	8040
AGCATTC AAG	ATTTGACGAA	GTTGCAATTG	GGCACGAGAT	GAACCAAGCG	TACCGTAAGA	8100
AGCACCTGTA	ATCATGATTG	GTTTGTTC A	AAGTGGGTAA	ATACCATAAG	ACAACCAAGC	8160
AAGAGCGCTC	ATCAAAACAG	CTGGAATAGA	GTGATCATA	TCAGGAGTAC	CGATAATAAC	8220
GCCATCTGCC	TCTTCGATTT	TAGCAGCAAT	TTCCAATATT	TCAGCAGGTA	CTTGCTTGTC	8280
AGCTGGTTTG	TTGAAGACAG	GAATGGCCTT	GATTTCAACA	AGTTCAATTT	CAGCTTTGTC	8340
AGTAAAGTGT	TTTTGCATGT	ATTGAAGCAA	TTGACGGTTT	GTAGAACGTT	TTGAATTTGT	8400
TCCAACAATA	GCAATAAGTT	TTAACATGAG	ATTTCTTTTC	TCTTTTTTACA	TAATACAATT	8460
TTAAAATTCC	ATTGAAACAG	TTGTCTCTAT	AGAGTAGGAA	TTCTTGAAGA	ACAGCTTAGG	8520
TGGCCTTCTT	TATCGATGAG	GATGACTTCG	ATGCCCTCCA	AACTTTTCGAC	TTGCCAGAGG	8580
ATAGAAGCAG	GTCTTTCTCC	AAAGAGTCGA	GTCGTCCAGA	TTTCGCCATC	GACTGATTTA	8640
TCAGAGATGA	TTGTTAGACT	CGCTAGTTCC	GTTTCAACAG	GATATCCTGT	TTGACTGTCA	8700

509

AAAATGTGAT	GGTAATCTTG	TCCATCGACG	GTCAGGTGAC	GTTCATAAAT	GCCTGAAGTC	8760
ACGACAGATT	TATTGACAAC	AGGGATGGTC	ATTAAATGAT	TTCCCCTAGG	ATTGGCTGGG	8820
TCTTGAATCC	CGATTTGCCA	TGGGTATATCC	CCTCTTGCCCT	GATTTTTTCC	AATGGTCAGG	8880
ATATTCCCTC	CCAGATTGAT	CAAGGCAGAA	GTCACCCCCT	CTTTCCTAAG	AAATTGGGCA	8940
ACCTTATCCG	CACTGTATCC	TTTGGCTAAA	CAACCTAGAT	CGATCTTCAT	TCCTTTCTGT	9000
TTTAAAAACA	CAGTAGAAGT	AGAAGAATCT	AACTCGATAC	CATGAGGATT	GATTAGAGGC	9060
AGCACCGATT	CAATTTCTTG	AGGCTGGGCG	ACCTTGGCAT	CTGAAAAACC	GATACGCCAG	9120
GTTTGAATTA	AGGGACCAAT	GCTGATATTG	AGGTGGCTAG	AGAGCGCTAG	GCTATGCTCT	9180
AACCCAAGTG	AAATCAGCTC	AAACAGGTCT	GGATGAACCG	TGACGGGGGC	TATTCCTGCT	9240
TGATAATTGA	TTTCCATCAA	CTCAGATTCT	TGACTATTGG	CGTTGAAGCG	GTATTCAAGT	9300
TCTTTGAGCA	AGTCAAAGGA	TTTTTGGAGA	AAGATATCGG	CTTGCTCATC	CACTAATGAA	9360
ATAGTGATAG	TAGTCCCCAT	TAGCCGTTCA	GAATGTGAAC	GAAGAGTCAA	GCTACCAACT	9420
CCTTTCTCTT	ATAGAAAATA	AGTTGTAATA	TCAAATAATC	ATCTAAATTG	AAGCCCTTAC	9480
ATTTCATTTT	CATGTTATTA	TAATACCATA	AAGTTAGAAT	TTTCACAAAC	AAAATTTGGA	9540
AAAAGTCAAG	AAATATGCTC	ATAAAATTCA	TCAGGCTTGA	AAACAGGATA	AATGGGGAAT	9600
TATTTTTGAT	AAAAAATGCT	GAAATAATAG	TACCCCCCTT	GTAAACGCTA	ACGGTAAATG	9660
GTATACTAGT	AAGGTAAATT	TAGAATGAAG	GCAGGAAATT	TTTATGAGTA	AAATCGTTGT	9720
AGTCGGTGCT	AACCACGCTG	GTACAGCATG	TATCAATACC	ATGTTGGATA	ATTTTGGA	9780
TGAGAACGAA	ATTGTTGTAT	TTGACCAAAA	CTCTAACATC	TCTTTCCTAG	GATGTGGAAT	9840
GGCTCTTTGG	ATTGGTGAAC	AAATTGACGG	TGCTGAAGGC	TTGTTCTATT	CTGATAAAGA	9900
AAAATTGGAA	GCTAAAGGTG	CTAAAGTTTA	CATGAACTCA	CCTGTTCTTT	CAATCGACTA	9960
TGATAACAAA	GTAGTTACAG	CGGAAGTTGA	AGGAAAAGAG	CACAAAGAAT	CATACGAA	10020
ATTGATTTTC	GCTACAGGCT	CTACACCAAT	CTTGCCACCA	ATCGAAGGTG	TTGAAATTGT	10080
TAAAGGAAAC	CGCGAATTTA	AAGCAACTCT	TGAAAACGTA	CAATTCGTGA	AATTGTACCA	10140
AAATGCTGAA	GAAGTTATCA	ATAAACTTTC	TGACAAGAGC	CAACACCTCG	ACCGTATCGC	10200
CGTTGTTGGT	GGTGGTTACA	TCGGTGTTGA	ACTTGCTGAA	GCCTTTGAAC	GTCTTGGA	10260
AGAAGTTGTC	CTTGTTGATA	TCGTTGATAC	TGTCTTGAAC	GTTACTATG	ACAAAGACTT	10320
CACACAAATG	ATGGCGAAGA	ACTTGGAAGA	TCACAACATC	CGCTTGGCTC	TAGGTCAAAC	10380
TGTTAAAGCA	ATCGAAGGTG	ACGGTAAAGT	TGAACGCTTG	ATTACTGACA	AAGAAAGCTT	10440

510

TGACGTGGAT ATGGTTATCC TTGCAGTTGG TTTCCGTCCA AACACAGCCC TTGCAGGTGG	10500
TAAGATCGAA CTCTTCCGCA ACGGTGCCTT CCTTGTTAGAC AAGAAACAAG AAACATCTAT	10560
CCCAGACGTT TACGCTGTTG GTGACTGTGC GACTGTTTAT GACAATGCTC GTAAAGATAC	10620
AAGCTATATC GCTCTTGCTT CAAATGCTGT GCGCACTGGT AACGTTGGT	10669

(2) INFORMATION FOR SEQ ID NO: 58:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7542 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 58:

CGCGCTAATA GATACTTTAT GATAGAATAA AGAACAAGAT TGACAAGTAA GAGGAAACAT	60
TATGCAAAAT CAAACACTCA TGCAATACTT TGAATGGTAT CTGCCCCACG ACGGTCAACA	120
CTGGACGCGT CTGGCTGAAA ATGCTCCACA CCTAGCTCAT CTGGGGATCA GTCACGTCTG	180
GATGCCACCA GCCTTCAAGG CAACCAACGA AAAAGATGTC GGCTATGGGG TCTATGACTT	240
ATTTGACTTA GGAGAGTTCA ACCAAAAAGG GACTGTCCGC ACCAAGTATG GTTTCAAAGA	300
AGACTATCTT CAAGCCATTC AAGCCCTTAA AGCACAGGGA ATTCAACCTA TGGCCGATGT	360
AGTTCTCAAC CACAAGGCTG CTGCCGATCA CAGGGAAGCC TTTCAGGTTA TCGAAGTTGA	420
TCCTGTAGAC CGTACAGTTG AACTTGGAGA ACCCTTCACC ATCAATGGCT GGACTAGTTT	480
TACCTTCGAT GGTGCGCAAG ATACCTATAA TGGCTTCCAC TGGCATTGGT ACCACTTCAC	540
CGGTACAGAC TACGATGCCA AACGCAGTAA ATCTGGGATT TATCTGATCC AAGGGGACAA	600
CAAGGGCTGG GCCAACGAGG AATTGGTCGA TAACGAAAAC GGAAACTACG ACTACCTCAT	660
GTATGCCGAC CTAGACTTTA AACATCCTGA AGTCATCCAA AACATCTATG ACTGGGCTGA	720
TTGGTTCATG GAAACGACTG GTGTAGCTGG TTTCCGTTTG GATGCCGTTA AGCATATTGA	780
CTCTTTCTTT ATGCGCAACT TCATCCGCGA TATGAAGGAA AAATACGGTG ACGATTTCTA	840
TGTTTTTGGT GAATTTTGGA ACCCAGACAA GGAAGCCAAT CTGGACTATC TCGAAAAAAC	900
GGAAGAACAC TTTGACCTTG TCGATGTTCG TCTCCACCAG AATCTCTTTG AAGCCAGTCA	960
AGCTGGCGCA AACTATGACC TTCGTGGCAT TTTCACAGAT AGCCTGGTTG AACTCAAGCC	1020
TGACAAGGCT GTGACTTTTG TCGACAACCA CGATACCCAA CGAGGACAAG CCCTTGAGTC	1080
TACCGTTGAA GAATGGTTCA AGCCAGCAGC CTATGCCCTC ATTTTGTTAC GCCAAGACGG	1140
CCTTCCATGT GTCTTTTACG GAGACTACTA TGGGATTTCA GGGCAGTATG CTCAAGAAGA	1200

511

TTTCAAAGAA	ATCCTTGACC	GCCTCCTAGC	CATCCGAAAA	GATTTGGCCT	ATGGAGAACA	1260
AAATGACTAC	TTTGACCATG	CTAACTGTAT	CGGTTGGGTA	CGTTCAGGTG	CTGAAAATCA	1320
ATCCCCAATC	GCAGTCCTTA	TCTCAAATGA	CCAAGAAAAC	AGCAAGTCAA	TGTTTGTCGG	1380
TCAAGAATGG	ACTAATCAAA	CCTTTGTAGA	TTTACTTGGT	AACCACCAAG	GTCAAGTTAC	1440
AATTGATGAG	GAAGGTTATG	GACAATTCCC	TGTCTCAGCT	AGATCCGTAA	GTGTCTGGGC	1500
AGTCAATACC	ATCTAATAGC	TCATAATAAC	CAAGCTAGGT	CCAAGCGGAT	TTGGCTTTTT	1560
TGTATTCACA	AAAAGACCTA	CCCAAATGGA	TAGATCTTTA	CTTGATTACA	ATTTACCTGC	1620
TACTGCATCC	AACAATTCTT	GGATCTTAGG	TTGGTTGCTT	CCTCCTGCCA	TGGCCATATC	1680
TGGTTTACCA	CCACCACGTC	CATCGATGAT	TGGTGCTAAT	TCTTTGACAA	GGTTTCCTGC	1740
ATGAAGGTCT	TTTGTCTTGC	TTGCTACAAG	GACATTGACT	TTGTCACCGA	TAGCGGCAAC	1800
TAGGACAAGA	AGATCAGAGT	AGTCTTTTTG	TTTCCAGTTA	TCTGCAAAAG	TACGAAGGGC	1860
ACCGGCATCG	GATACAGACA	CTTGACTAGC	AATGTAACGA	TGACCGTTGA	CTTCCTTAAC	1920
ATCTTTGAAG	ATATCGCCTG	CGGCTGCAGC	TGCGGCTTTT	TCTTTCAACT	CAGCATTTTC	1980
TTTTTTGAAGT	TGACGAAGTT	GTTCTTGAAG	TCCTTCTACC	TTGTGAGGTA	CTTCCTTGAC	2040
TTGAGGTGCT	TTCAAGGTTG	CTGCGATAGC	TTTAAGAGCA	TCCTCTTGTT	CACGATAGGC	2100
TTCAAAGGCT	TCCTTACCAG	TCACTGCCAA	GATACGGCGA	GTTCTGAAC	CGATTCCTTC	2160
TTCTTTGACA	ATTTTGAAGA	GACCAATCTC	AGAAGTGTTG	TCAACATGAG	TACCACCACA	2220
AAGTTCAATA	GAGTAGTCAC	CGATAGTCAC	GACACGAACT	TCCTTGCCGT	ATTTCTCACC	2280
AAAGAGGGCC	ATAGCTCCCA	TTTCTTTAGC	AGTGTCAATA	TCCGTTTCAA	CTGTCTTCAC	2340
TTCAAGTGCT	TCCCAAATTT	TCTCGTTAAC	TTGCTGTTCA	ATCGCACGAA	GTTCTCAGC	2400
AGTTACTGCT	TGGAAGTGGG	TAAAGTCAAA	GCGAAGGAAT	TCAACTTCGT	TAAGAGATCC	2460
TGCCTGTGTT	GCGTGGTTTC	CAAGGATATT	GTGAAGGGCA	GCGTGAAGCA	AATGAGTCGC	2520
AGTGTGGTTT	TTCATGACAC	GGTGACGGCG	ATTGCTATCA	ATTGCCAAGG	TATATTCTTG	2580
GTTCAAGGCA	AGCGGTGCAA	GGACTTCAAC	TGTATGAAGG	GCTTGACCAT	TTGGGGCTTT	2640
CTGAACATTG	GTCACAGTAG	CCACAACCTT	ACCTGACTCA	TCCAAGATTT	GTCCGTAGTC	2700
AGCTACCTGT	CCACCCATTT	CAGCATAAAA	TGACGTTTCC	GCAAAGATAA	GAGAGGCAGT	2760
TCCTTCTGAA	ACAGCTCCTA	CTTCTGCATT	GTCAGCAACG	ATAGCTACCA	ATTTAGAAGA	2820
CAATTGGCTA	GCATTGTAGT	TGAAGACACT	TTCTACAGTG	ATGTTTTGAA	GAGTTTCATT	2880
TTGCATACCC	ATTGAGCCAC	CCTTGACAGC	TGACGCACGC	GCGCGTTCTT	GCTGTTCTTT	2940

512

CATGGCTGCT	TCAAAACCTT	CACGGTCTAC	AGTCATACCA	GCTTCTTCAG	CGATTTCTTC	3000
AGTCAATTCA	ACTGGGAACC	CATAAGTATC	ATAGAGTTTG	AAGACATCTG	AACCAGCGAT	3060
AACAGATTGA	CCTTTTCTT	TCAAGTCTGC	TACAATGCCT	TGGGCAAAGT	GTTGACCTGA	3120
GTGAAGGGTA	CGGGCAAATG	ATTCTTCTTC	GCTCTTAACG	ATTTTCTCAA	TAAAGTCACG	3180
TTTCTCAAGC	ACTTCTGGGT	AGTAGCTTTC	CATGATTTTT	CCAACAGTTG	GAACCAATTT	3240
GTAAAGGAAA	GGCTCGTTGA	TACCCAATTT	TTGACCATGC	ATAGAAGCAC	GACGGAGAAG	3300
ACGACGAAGA	ACATAACCAC	GACCTTCATT	TCCTGGAAGG	GCACCATCAC	CGATAGCAAA	3360
TGAAAGAGAA	CGAATGTGGT	CTGCGATAAC	CTTGAAGCTC	ATGTTGTCGC	CATCTTGGTC	3420
ATAAACCTTA	CCAGACAATT	TCTCGACTTC	ACGGATAATC	GGCATGAAGA	GGTCCGTTTC	3480
AAAGTTGGTC	TTAGCCCCCT	GGATAACGGC	CACCAAACGC	TCCAAACCAG	CGCCCCGTATC	3540
AATGTTCTTA	TGTGGCAATT	CCTTGATATC	GCTACGAGGA	ACAGCAGGGT	CTGCGTTAAA	3600
TTGTGACAAA	ACGATGTTCC	AGATTTCAAT	ATAACGGTCG	TTTTCAATAT	CTTCTGCAAG	3660
CAGGCGAAGA	CCGATATTTT	CTGGGTCAAA	GGCTTCCCCA	CGGTCAAAGA	AGATTTCTGT	3720
ATCTGGTCCA	GAAGGTCCCG	CACCGATTTT	CCAGAAGTTG	TCCTCAATTG	GAATCAAGTG	3780
ACTTGATCC	ACTCCCCTT	CAATCCAGCG	GTTGTAAGAA	TCTTTATCGT	CTGGATAGTA	3840
GGTCATGTAA	AGTTTTTCAG	CAGGGAAATC	AAACCATTCA	GGGCTTGTCA	AAAGCTCATA	3900
AGCCCAAGTG	ATAGCTTCGT	CACGGAAGTA	ATCCCCGATA	GAGAAGTTCC	CCAGCATTTT	3960
AAACATGGTA	TGGTGACGCG	CGGTCTTCCC	TACGTTTTCG	ATGTCGTTGG	TACGGATAGC	4020
CTTTTGGGCA	TTGGTAATAC	GTGGATTTTC	AGGGATAATG	GTCCCGTCAA	AGTATTTCTT	4080
AAGGGTTGCT	ACCCAGAGT	TGATCCACAA	AAGAGTTGGG	TCATTTACAG	GAACCAAAC	4140
TACTGATGGT	TCTACTGAGT	GACCTTTGGT	CGCCAGAAA	TCAAGCCACA	TTTGGCGTAC	4200
TTGTGCACTA	GATAGTTGTT	TCATATTGTC	TCCTTATTCA	CTTGTTTAAT	GTGATTGGCT	4260
TTCCAGCATT	TCCACATAGT	CAATCGCGAC	ACAGAGGGAA	ATGACTAGGT	CTGCATAAGC	4320
GTCTTCAAGA	ACCGTTACGG	TATAGGTAGA	AGTCAGATGG	AAGAGTTCCT	TCTTAATTTT	4380
CGCAATCAAC	TGATCGCGAT	CATCCAGCAA	TTTGAAATTC	AAATCCCAGA	TATTGCCCTC	4440
GATACGAAGA	CCTAGATTAT	CAAACTCATA	CTTATCTCGC	CAGAAGGTCA	ACTTCTTACG	4500
AATGACAAAA	CTCGAGCCAT	CCCGAAGCTG	AATTTCAAAA	CGAGGAAGCA	AGGTCAAGAT	4560
TTCTTTACTA	ATCTCACTGA	CTTGTTTACC	AGCCGCATCA	TAGATGGTAA	AGGTTTTAGG	4620
AATCTTAAAA	AATGATCCCT	CCACCTGATA	GGCAATTTCT	CCCCTGTCAT	CCTTGATAGC	4680
GAAGCGTTCG	CCTCCAAGAC	GAAACTTTTG	TTTGACAAGA	AATGTTTTCA	TCAACACCTC	4740

513

CAAAAATCAA	AAGACAAGCT	CATATCACGA	AGGGCGAAAA	ACCGCGGTAC	CACCTTCATT	4800
CAATGAACCT	GTCATTCTCT	TGTTCTTATG	CAATTGTATG	ATTGAGTAGC	ATGACTTCCT	4860
AGCTTAGATG	GCTCGCAGCA	CCGCCATTTT	TCTGGACTAA	GACAAGTGAA	AATCAATTCT	4920
CAACTTTCCT	ATTATAACGT	TTTTTTAAGC	TTGCGTCAAC	TGGAAATGAT	CTCCGTTGAA	4980
TTAGACCAAT	TCCCTACATC	TCTGATTACT	TTTTTCAGGAT	ATATTTTTTTC	TTACTGCCAT	5040
TTTTCTTTTT	ATCCCAAATT	TTCATATTAC	TAAACACAGC	TACTAGAATA	TTTCCAAATA	5100
TAAAGGTGCC	TATCACCCAA	TATATGGACT	CAGTTGTTAG	GTATTGTCGA	TCCAAGCCAT	5160
CCTTTAAATG	GAATAGTATA	GCAGTTTGGT	TAACAATCAT	AAAGGTTGGC	CAGAAACTTT	5220
TTTTGAAAAA	AGTAGACATT	TTCATTATTT	GTTGCCGCTT	TCTGTAAGGT	TAATACTCAA	5280
TAAAAATCAA	AAAGCAAACCT	AGGAAGCTAG	CCTCAAGCTG	TACTTGAGTA	CGGCAAGGCA	5340
ACGCTGACGT	GGTTTGAAGA	GTATAGGCTT	AGTATACTAC	TAGGCAAGCA	AATAAACAAA	5400
TAAACAACCTA	GAATAGAAAA	AGATAGGGCT	CTAAAAACTG	ACTTCTATTC	CTTAAAAACG	5460
AACCAGCTTG	ACTGATTCGT	CTTCTTACGT	TTATCTCCTA	CTTCCGATAC	ATTTTAAACT	5520
GTAGGAAGAG	GTCGCTATAT	TTCCCTGTCC	ATTTATGGTC	AAATTTCTCA	TAAACTTCTA	5580
GGTGTTTCAT	GGTTTCAACA	TCGGGATAGA	AGGCCTTATC	TTCCCTTGTT	TCCTCTGGGA	5640
GCAATTCCTT	CGCTGGTAGG	TTTGGTGTTG	AATAGCCGAC	ATACTCCGCA	TTTTGGAGAG	5700
CATTTTCAGG	TTTCAACATA	AAGTTGATAA	AGGCATAGGC	TGAGTTTGGG	TTTTTAACTG	5760
TTTTTGGAAT	GACCATATTG	TCAAACCAAA	GATTGCTGGC	CTCTGTCGGT	ACCACATAAC	5820
GTAGATTTTC	ATTTTTTTCT	AACATTTGGC	TGGCTTCACC	AGAGAAGGTC	ACGCCGATTG	5880
CAACATTATT	CTGAATCATA	TAGCCCTTCA	TCTCGTCCGC	AACGATAGCC	TTGATATTTG	5940
GAGTCAGTTT	GTAGAGCTTA	TCCACTGTCT	CTTCCAACCTG	CTGCAGATCC	TTGGAGTTGA	6000
GGCTGTAGCC	GAGGGAATTG	AGTCCTAGTC	CCAGCACCTC	ACGCGCCCCA	TCAAAGAGCA	6060
TGATAGAATT	CTTATACTCC	GGCTTCCAAA	GGTCATCCCA	ATGCTCAGGC	GCTTCATCTA	6120
CCATGGTTTC	GTTGTAGACA	ATTCCCTAAGG	TTCCCCAGAA	GTAAGGGATG	GAGAATTTAT	6180
TACCTGGGTC	AAAGGACTGG	TTGAGAAACT	CTGGTCCGAT	ATTTTCGATT	CCTTCAATTT	6240
TTGAATAATC	AAGCGGAACC	AAGAGGTCTT	CGTCCTTCAT	CTTGTTAATC	ATGTATTCAC	6300
TTGGAATGGC	AATATCGTAG	GTCGTTCCAC	CCTGCTTTAT	CTTAGTGTAC	ATGGCTTCGT	6360
TGGAGTCAAA	AGTCTCGTAC	TGAACTTGAA	TTCTGTTTTC	TTCTGTAAAC	TGAGTCAAGA	6420
GTTTCAGGATC	GATATAGTCT	CCCCAGTTAT	AGATAACCAA	TTTTTGACTA	TCTCGACTAT	6480

514

TGATTTTACT	ATCTAAATGA	GTCGCAATTC	CCCACAAGAC	AAGGATAATC	GCTGCAATTC	6540
CTGCTAAAAA	TGAATAGATT	TTTTTCATGC	TTGCTCCTCC	TTCTCACGAG	AGATAAAGTA	6600
ATAACCTACA	ACTAGGATAA	TACTAAAGAG	AAAGACTAGA	GCAGACAGGG	CATTGATTTC	6660
TAAGGAAATC	CCCTTGCGAG	CACGAGAGTA	AATCTCGACT	GATAGGGTTG	AAAAGCCATT	6720
TCCTGTTACA	AAGAAGGTCA	CGGCAAAGTC	ATCTAACGAA	TAGGTGAAGG	CCATGAAATA	6780
ACCAGTAATG	ATAGACGGAG	TCAGGTAAGG	AAGCATGATT	TCCTTGAACA	TCTGAAATTG	6840
ACTAGCTCCC	AAGTCATAGG	CCGCATGAAT	CATGTCGCCA	TTCATTTCTT	TGAGTCGAGG	6900
CAAGACCATC	AAGACCACGA	TAGGAATGGA	GAAGGCCACG	TGACTAGATA	GAACGGTCAA	6960
AAAGCCAAGT	GAAAACTTGA	GTTGGGTAAA	GAGAATCAAG	AAGCTAGCAC	CAATCATAAC	7020
GTCAGGCGCA	ACCATGAGGA	TATTATTGAG	TGATAGAAAG	GCTTCTTGGT	ATTTCTTACG	7080
AGACTGGTAG	ATGTAAATGG	CACCAAAAGT	CCCGATAATG	GTCGCTATCA	AGGCTGATAG	7140
GAAGGCCAAG	AAAAATGTCT	GAGCCAAAAT	CAGCATGAGT	CTCCCATCTC	CAAACATGGT	7200
TTCAAAGTGA	GTCCAGCTAA	AACCTGTAAA	GCTATTCATA	TCATCACCAG	CATTAAAGGC	7260
ATAGCCAATC	AAGTAAAAGA	TAGGCAGGTA	GAGGACCAGA	AAGACCAGTC	CCAGATAAAG	7320
GTTGGCAAAT	TTTTTCATCG	TTCTCTCCTT	TCCTTAGTCA	CCCACATGGT	GATGAACATG	7380
GTCAGGATGA	GAATCACACC	GATGGTTGAA	CCCATACCAT	AGTTGTCATT	GGTTAGAAAA	7440
TTCTGCTCAA	TAGCCGTCCC	CAAGGTGATA	ACGCGTTCCC	ACCAATCAAA	CGGGTCAGCA	7500
TGAAGAGACT	CAAACCTGGG	ATAAAGACCG	ACTGAACCCC	GG		7542

(2) INFORMATION FOR SEQ ID NO: 59:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9223 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 59:

AAAACCAAAT	TCCGGTATTT	TAACCTATGC	TGTAAATACC	ATGAAGTCTG	TCATGACAGA	60
TCAGGTCTAT	AACATTAAGG	TTGAGACAGA	AAATGGAAAT	TATGTTGGTG	AAGCTAGCCA	120
TGTTTTGGTC	CTTTTGACAA	ATTACTTCGC	TGATAAGAAA	ATCTTTGAAG	AAAACAAGGA	180
CGGCTATGCC	AACATTTTGA	TTCTGAAAGA	TGCCTCTATA	TTCTCCAAAT	TATCCGTCAT	240
TCCTGATTTA	TTAAAAGGGG	ATGTTGTCGC	AAATGATAAT	ATCGAGTATA	TCAAAGCGCG	300
TAATATTAAA	ATCTCTTCAG	ATAGTGAATT	GGAGTCAGAT	GTTGACGGAG	ATAAATCAGA	360

515

TAACCTACCT	GTAGAAATCA	AAGTCCTAGC	TCAGCGAGTA	GAAGTATTTT	CAAAACCGAA	420
AGAGGATTAG	TATATAGAGA	AAGCCTTTTT	TAAGGCCTTT	TGTATACTTT	AAAAGATAGT	480
TCCTTTAACA	ACGGACATTC	CTTGCAAATA	GTTTACAAA	AATAGTATAC	TGGATTCATT	540
GAGTTTGAAA	ACGTTTGCCT	AAAATTTGAA	TGAATACTTT	AGGAGACAAA	TTGATGGAAT	600
TGAGTGCTAT	TTACCATAGG	CCTGAGTCGG	AGTATGACTA	TCTTTATAAG	GATAAGAAAC	660
TCCATATTCG	AATTCGAACT	AAGAAAGGGG	ACATTGAAAG	CATCAACTTG	CACTATGGGG	720
ACCTTTTAT	CTTTATGGAG	GAGTTTATC	AGGATACAAA	AGAAATGGTC	AAGATAACTT	780
CTGGTACCTT	ATTTGACCAT	TGGCAGGTTG	AAGTGTGAGT	TGACTTTGCA	CGTATCCAGT	840
ATCTCTTTGA	GCTCAGAGAT	ACAGAAGGTC	AAAATATTTT	GTATGGCGAT	AAAGGGTGTG	900
TGGAAAATTC	TCTAGAAAAT	CTTCATGCAA	TTGGGAATGG	ATTTAAGTTG	CCTTAGCTTC	960
ATGAGATTGA	TGCCTGCAAG	gTTCCTGACT	GGGTTTCAAA	TACGGTATGG	TATCAGATAT	1020
TTCTGAAAG	ATTTGCCAAT	GGCAATGCTC	TATTAAACCC	AGAAGGGACT	TTAGACTGGG	1080
ATTCATCTGT	CACACCTAAG	AGCGATGATT	TCTTTGGTGG	TGATTTACAG	GGGATTATTG	1140
ATCATATGAA	TTACTTGCAA	GACTTGGGTA	TTACTGGACT	ATATCTTTGT	CCCATCTTTG	1200
AATCTACAAG	CAATCACAAG	TACAATACGA	CAGATTACTT	TGAAATTGAC	CGTCATTTTG	1260
GAGACAAGGA	GACCTTTCGG	GAAGTGGTGG	ATCAAGCGCA	TCATCGTGGC	ATGAAAGTCA	1320
TGCTGGATGC	GGTATTTAAT	CATATTGGTT	CGCAATCTCT	TCAATGGAAA	AATGTCGTCA	1380
AAAATGGTGA	ACAGTCTGCT	TATAAGGATT	GGTTCCATAT	TCAACAATTC	CCAGTGACAA	1440
CTGAAAAGCT	AGTTAATAAG	AGAGACTTAC	CCTATCATGT	TTTTGGTTTC	GAGGACTATA	1500
TGCCTAAGCT	AAATACAGCC	AATCCAGAGG	TCAAGAATTA	TCTTTTAAAG	GTTGCGACTT	1560
ATTGGATTGA	AGAGTTTAAT	ATCGATGCTT	GGCGTTTGGA	TGTGGCTAAT	GAGATTGACC	1620
ATCAGTTCTG	GAAGGATTTT	CGTAAGGCAG	TTTTAGCTAA	AAATCCTGAT	CTTTATATCC	1680
TAGGAGAAGT	CTGGCATACA	TCTCAGCCTT	GGCTAAATGG	AGATGAGTTC	CATGCCGTCA	1740
TGAATTATCC	TTTATCTGAT	AGTATCAAGG	ACTATTTCTT	ACGAGGAATT	AAGAAGACAG	1800
ACCAGTTCAT	CGATGAAATC	AATGGAGAGT	CTATGTATTA	CAAGCAGCAG	ATTTGAGAGG	1860
TCATGTTTAA	TCTCTTGGAT	TCACATGATA	CAGAGCGAAT	CCTGTGGACG	GCCAATGAAG	1920
ATGTTCAACT	GGTTAAATCA	GCCTTAGCCT	TTCTCTTTTT	ACAAAAAGGA	ACACCGTGCA	1980
TTTATTACGG	AACCGAGCTA	GCCTTGACTG	GAGGACCAGA	TCCAGATTGT	CGTCGTTGTA	2040
TGCCTTGGGA	ACGTGTATCA	AGTGACAATG	ATATGCTGAA	CTTTATGAAG	AGGCTGATTA	2100

516

AAATTTCGGAA	ATACGCGTCA	GTAATCATTT	CGCATGGCAA	GTATAGCCTT	CAAGAAATCA	2160
ACTCTGATCT	AGTAGCTCTG	GAATGGAAAT	ACGAAGGACG	GATCCTCAAA	GCAATATTCA	2220
ACCAATCAAC	AGAAGATTAT	CTTTTAGAGA	AAGAAGCAGT	AGCACTAGCA	AGCAATTGCC	2280
AAGAATTGGA	TAATCAGCTT	GTCATCTCTC	CAGATGGATT	TATGATTTTC	TAAAAACTAG	2340
TTGATGAAGA	TTATGGTACA	TTTCATACCT	TATATAGTAT	AATAAGGCTA	GTTACTAAAC	2400
TTGTAAAGGA	GAAC TTAAAT	GAATTGTAGA	GGACATGAAA	CAAGACAAAG	AATTGTTAGA	2460
GATTTTGAAG	TTCAGCCTAA	AGCACATATT	AAGCTGTTAG	CAAATCAACA	AAAACATAGT	2520
GATGCAGGAG	CAACTATTGA	AGATGAATAT	TATGTATTTA	TCGCTGAGAG	TAAAATTGAT	2580
GGCAAGAAGG	AAGTTATTCA	GTGTTGCATG	GGTGCGGCAA	GGGATTTTTT	AGAACTAATT	2640
AATCACAAAG	GGCTACCTCT	TTTTAATCCG	CTTG TAGGTG	ATTCTCATGT	AAATAATAGA	2700
CAAGAATATG	ACAATACAGG	GAGTGGAAAT	TTATAACCTG	AAAAGTGGAA	TGAAACTGCA	2760
AAGCAGCTTT	ATAATGCTAT	AATGTGGTTG	ATTATTTTAT	GGAATGCTAA	GCCGGATACA	2820
CCTTTATTTA	ATTTTAAAGA	CGAAGTAATT	AAGTATAAAA	CATATGAGCC	TTTTGAAAGC	2880
AGTATAAAAA	GAGTAAATAC	TACTATAAAG	AATGGTAGTA	AAGGGAAAAC	TCTGACTGAG	2940
ATGATTAATG	GCTACAGAGC	GGATAACGAT	ATTAGAGATG	AAATTTGTAA	CTTTAATATT	3000
CTGAAAAATA	AAATTTCGTGA	TATGAAAAAC	CAACAAGGAA	ATACAATGGA	ATCTTACTTT	3060
TAGTTATTGT	TGAATTTTGG	GTATTCTATA	AAATATCCTA	ATTGAGATTT	AAATAGTAGA	3120
CTATACAATA	TAGTTAAAAT	ATCAGTAAAA	ACAACACTTT	ATTGAGGTAT	TGGATACGCT	3180
TTGCTAATAG	CCTAATAATC	ACATGTGGAG	TGTTGCTACA	ACGAAAAAGG	TGATAATCCT	3240
TGATTTCAAG	CTATTTTATA	AGCATTTTGT	CTTTGTAGAT	AAAGGCAATT	TTGACAATAA	3300
AAATCCTAAA	AGGTGAATCG	TTATAGATGT	ATTTGTAGAT	ATCGTTTGCG	CATCGAAAAA	3360
ATTAATACAA	GAATAAATAT	TTATAGCTCT	TTAGGTGACT	TTTATAGAAG	TAAAGTTTAG	3420
GATAGAAAAA	CAAGAAATAA	CGCACCATTT	TTGGTGCGTT	ATGCTTTTTT	ATGCTATAAT	3480
GGATTTATAA	AAATAAAGGA	GTTTGCTATG	ATTGGAAAGA	ACATAAAATC	CTTGCGTAAA	3540
ACACATGACT	TAACACAAC	CGAATTTGCA	CGGATTGTAG	GTATTTACAG	AAATAGTCTG	3600
AGTCGTTATG	AAAATGGAAC	GAGTTCAGTC	TCTACCGAAT	TAATAGACAT	CATTTGTCAG	3660
AAGTTTAATG	TATCTTATGT	CGATATTGTA	GGAGAAGATA	AAATGCTCAA	TCCTGTTGAA	3720
GATTATGAAT	TGACTTTAAA	AATTGAAATT	GTGAAAGAAA	GAGGTGCTAA	TCTATTATCT	3780
CGACTCTATC	GTTATCAAGA	TAGTCAGGGA	ATTAGCATTG	ATGATGAGTC	TAATCCTTGG	3840
ATTTTAATGA	GTGATGATCT	ATCTGATTTG	ATTCATACGA	ATATCTATCT	AGTAGAAACT	3900

517

TTTGATGAAA	TAGAGAGATA	TAGTGGCTAT	TTGGATGGAA	TTGAACGTAT	GTTAGAGATA	3960
TCTGAAAAAC	GGATGGTGGC	CTAATGGAAA	TCCAAGATTA	TACTGATAGT	GAATTCAAAC	4020
ATGCTTTAGC	AAGGAATCTT	CGTTCACCTG	CAAGAGGAAA	AAAGTCCAGT	AAGCAACCTA	4080
TAGCGATTTT	GCTTGGAGGG	CAAAGTGGTG	CCGGTAAGAC	TACAATTCAT	CGTATTAAAC	4140
AGAAAGAATT	TCAAGGAAAT	ATTGTTATCA	TAGATGGTGA	TAGTTTTCGT	TCTCAGCATC	4200
CACACTATTT	AGAACTGCAG	CAAGAATATG	GCAAAGACAG	TGTAGAATAT	ACCAAAGATT	4260
TTGCAGGAAA	AATGGTAGAG	TCTTTAGTAA	CAAAATTGAG	TAGTTTGAGA	TACAATCTTT	4320
TGATAGAGGG	AACTTTACGA	ACAGTTGATG	TTCCAAAGAA	AACAGCACAA	CTCTTGAAAA	4380
ATAAGGGATA	TGAAGTACAA	TTGGCCTTAA	TTGCGACAAA	GCCTGAATTG	TCGTATCTAA	4440
GTACTCTTAT	CCGTTATGAA	GAAGTGTACA	TTATCAATCC	AAATCAAGCA	CGCGCAACTC	4500
CAAAAGAACA	TCATGATTTT	ATTGTAAATC	ATCTAGTTGA	TAACACACGA	AAATTGGAAG	4560
AACTAGCTAT	CTTTGAAAGA	ATTCAAATTT	ACCAACGAGA	TAGAAGTTGT	GTATATGATT	4620
CAAAAGAAAA	TACAACCTCA	GCAGCAGATG	TTCTTCAAGA	GTTACTCTTT	GGGGAGTGGA	4680
GTCAGGTAGA	GAAGGAGATG	TTGCAGGTGG	GGGAAAAGAG	ACTTAATGAA	TTACTTGAAA	4740
AATAACAAT	TGATATTTTT	AGGAGAATAG	AAATGAGAGG	GTTTAATAAC	AAGATAAAGT	4800
CTGTTTATCA	AGAACTAACA	AATTCCAAAG	AGAAATTCGG	TAGCTTTCAC	AAGACTTTAA	4860
TTCATTTGCA	TACACCTGTT	TCTTATGATT	ACAAGCTATT	TTCTAATTGG	ACTGCAACGA	4920
AATATAGAAA	AATTACTGAA	GATGAACCTA	ATGATATATT	TTTTGAAAAT	AAGAAAATAA	4980
AAGTTGATAA	GACAATTTTT	TTTAGTAATT	TTGATAAGGT	TGTTTTTTCT	AGTTCAAAAG	5040
AATATATTAG	TTTTCTTATG	TTAGCAGAGG	CAATCATAAA	AAATGGAATA	GAAATAGTTG	5100
TAGTAACTGA	TCATAATACT	ACCAAAGGTA	TTAAAAAGTT	ACAAATGGCA	GTCTCAATCA	5160
TAATGAAAAA	TTATCCGATT	TATGATATAC	ATCCTCATAT	TTTACATGGA	GTAGAAATTA	5220
GTGCAGCAGA	TAAATTGCAT	ATTGTATGTA	TATATGATTA	TGAACAAGAA	TCATGGGTTA	5280
ATCAATGGTT	AAGTGAAAAT	ATTATAAGTG	AGAAAGATGG	AAGTTATCAA	CATTCACCTG	5340
CTATAATGAA	GGATTTCAAT	AATCAAAAAA	TAGTTAACTA	TATTGCTCAT	TTCAATAGTT	5400
ATGACATTTT	GAAAAAAGGT	TCTCACTTAT	CAGGTGCATA	TAAACGAAAA	ATTTTTTCTA	5460
AAGAAAATAC	ACGATTTTGG	AGTTTAATAT	TAACTCGAAA	GAATCTTCGC	AACAACCTGA	5520
TATTCTCTAT	AAAGAAGTTG	GTGTATTAAG	TTTGGGACAA	AAAGTTGTAG	CCATGCTTGA	5580
TTTTTTATTA	GCATATAGTG	ATTATTCTAA	AGACTTCAGA	CCATTGATTA	TTGATCAGCC	5640

518

TGAAGACAAT	CTAGACAATC	GTTATATTTA	CAGGCATTTA	G TTCAGCAGT	TTAGAGATGT	5700
GAAAGCTCAA	CGTCAAATTA	TTTTTAGCAAC	ACATAATGCT	ACAATTGTAA	CAAATTCTAT	5760
GACAGATCAA	GTTGTTATTA	TGGAGTCAGA	TGGAGTTAAC	GGATGGATTG	AATCACAGGG	5820
ATATGTTAGT	GAAAAATATA	TAAAAAATCA	TATCATCAAT	CAATTAGAGG	GAGGAAAAGA	5880
TTCTTCAAG	CATAAAATGT	CTATATATGA	GACGGCTTTA	TCAGAGTAGA	GTCAGAAAAA	5940
G TAGGTTAGA	AATTTAGCCT	ACTTTTTTCT	TTGTCCGACA	GGCATAGTGT	ACATCTGAGG	6000
TCCAAGTCCT	CTGTGGATAT	TTGCTGCAGA	TGAAACCAAT	AGCGACTCCT	AAGCCTGAAT	6060
ATCGTGAGGT	AGGGGGGATA	GGAAGGAATT	AGCGAAATCA	AGGTTCTACA	AACAGAATCG	6120
TGACTTGAAG	CCATATATAG	CGGATGAGGA	ACTCTAAAAT	CCAAATAGGT	GTCGTAACCT	6180
ATATACGTAA	ATTACGAGAG	TAAACTAGGA	AAGATGTACG	GCTTATTCCG	TGAGCGTTTA	6240
GGACGTAGTA	CAACGAATCA	TGGGAGTCAG	CTGAACACAT	AGTATTGAAG	AAATTTCTGT	6300
AATGGAAATG	GAGCGAAGAA	GTGAACAATT	AAATGAATAC	CTCTCTAATT	AAATTTGTCA	6360
ATTCTAATTC	CTGGTATGAA	AAGACAGTGA	CCTGAAAATG	TAAACGATGG	GAGCTGATCA	6420
TAAATATAGG	ACGGTACATG	CAGTGGTGTT	AGAGATTAGT	CCTTACTTGA	TTTGTGATAA	6480
CTTCCCCAAA	TTTCTTCTGC	TATACTTTTC	TCAACTTTTA	AAAATCCAAC	TAAGAATTTT	6540
ACCTGGGGGT	TTGGGGGCGG	AGCACTAAGT	TATCTTATCG	TTAGCTGTCA	AAACTGGTAG	6600
GTTTTGATAG	GCTGGCGATA	TGATTTTTTG	GATATTGTGG	ACACAATATC	TGAGCTCGCA	6660
AAGCCTTACA	AGAATGAAAA	TCAGTTGTTG	GAAAAGTGTA	CTGACATTGT	ATGGTAGCTC	6720
ACATTGTCAG	TACAAGTATT	TTGGAAAGGA	AGTAGCAGTA	TGAAACGAGA	TGTGCGTGAT	6780
ATTCGGAAAC	AATTTTCGTTT	AACAGAAGCA	GAAGAAAAGC	AAATTCTAGC	TTTGATGAGA	6840
GAGCGGGGAG	AGACTAATTT	CTCTGATTTT	CTTCGTAAAA	GTTTACTTTC	CTCTGATTTA	6900
CAAAAACAGA	TGGAGACATG	GTTTGCCCTC	TGGCAATCCC	AAAAACTAGA	ACAAATCAGT	6960
CGTGACGTTT	ATGAAGTTTT	AATCTTGGCA	CAGTCAGAAC	GTCAAGTCAC	CCAAGAGCAT	7020
GTATCTATTC	TCTTAACGTG	CGTGCAGGAA	TTGATTCAAG	AGGTTGCAAA	CACCATACCC	7080
CTCAGTAAAG	AATTCGTGA	GAAGTACATG	AGGTAAGCAC	ATGGAACATC	GTTACCGAAC	7140
CAATCTCAAG	AAAGTGTTTT	TGTCTGATAG	TGAGTTGAAC	CAACTAAATA	TAAATATCGA	7200
TCAAAGTGGT	TGTAAATCCT	TTTCTGAATA	TGCGAGACGA	ACTCTACTCG	ATCCTGGTAT	7260
GAATTTTATC	ACGATTGACA	CAAACGGTTA	CCAAGATTTA	GTGTTTGAGT	TAAAGAGGAT	7320
TGGCAATAAT	ATCAACCAGA	TTGCTCGAAG	TGTTAATCAA	TCTCAGTTAA	TTTCTGGTGA	7380
AGAATTGCAG	GAGTTGAAAA	AAGGAATTGG	TGAATTGATA	AAAGAAGTTG	ATAAGGAATT	7440

519

TAATCTGCAA	GCGCAGAAGC	TAAAGGAGTT	CCATGGTCAT	CACTAAACAC	TTTGCCATTC	7500
ACGGAAAGAG	TTACCGCAGA	AAGCTTATCA	AGTACATTCT	CAATCCTGAG	AAAACCAATA	7560
ATCTTGCCCTT	GGTGTCGGAC	TATGGCATGA	AGAATTTTCT	GGACTTTCCT	AGCTATGAGG	7620
AAATGGTGCA	GATGTATCAT	GAAAATTTCA	TCAGCAACGA	TACGCTTTAC	GATTTTCGCC	7680
ACGACAGGAT	GGAAGAAAAT	CAACGAAAAA	TACACGCTCA	CCACATCATT	CAGTCTTTCT	7740
CGCCAGAGGA	TCATATCACT	CCTGAACAAA	TCAATCGGAT	AGGTTATGAG	ACTGTGAAGG	7800
AATTAAGTGG	TGGCAAATTT	CGTTTTATCG	TTGCGACCCA	TGTTGATAAA	GACCACCTGC	7860
ACAATCACAT	CATTATCAAT	TCAGTAGATA	GCAATTCTGA	CAAAAAGCTC	AAGTGGGACT	7920
ACAAGGTGGA	GCGAAATCTT	CGCATGATTT	CTGACCGTTT	TTCTAAAATC	GCAGGTGCTA	7980
AAATCATTGA	GAACCGCTAT	TCTCACCAGC	GGTATGAAGT	CTATCGTAAG	ACTAATCACA	8040
AGTATGAACT	CAAGCAGCGA	CTCTATTTTT	TGATGGAACA	TTCTAGGGAC	TTTGAGGATT	8100
TCAAAAAGAA	TGCTCCGCTA	CTACATGTGG	AGATGGATTT	CCGTCACAAG	CATGCCACCT	8160
TTTTTATTAC	GGACTCAACT	ATGAAACAGG	TGGTGCGTGG	CAAGCAACTC	AATCGCAAGC	8220
AGCCTTACAC	AGAAGAATTT	TTTAAGAACT	ACTTTGCCAA	AAGAGAAATA	GAAAGTCTCA	8280
TGGAATTTTT	ATTGCTGAAA	GTTGAGAATA	TGGATGATTT	ACTTCAGAAA	GCAAACTTTT	8340
TTGGACTAAC	TATCAATCCT	AAACAAAAGC	ATGTTTCTTT	TCAATTTGCA	GGAGTGGAGG	8400
TAAAGGAGAC	AGAGCTAGAC	CAGAAAAATC	TTTATGATGT	AGAGTTTTTC	CAAGATTATT	8460
TTAAAAATAG	AAAAGATTGG	CAAGCTCCAG	AACTGAGGA	TTTCGTTCAA	CTTTATCAAG	8520
AAGAAAAGTT	ATCCAAAGAA	AAAGAACTTC	CAAGCGATGA	GAAGTTCTGG	GAGTCCTATC	8580
AAGAGTTCAA	GAGTAACAGA	GATGCCGTTT	ATGAATTTGA	GGTGGAGTTG	TCACTCAATC	8640
AAATTGAAAA	AGTAGTGGAT	GATGGAATTT	ACGTCAAGGT	CAAGTTTGGT	ATTCGTCAGG	8700
AGGGACTTAT	CTTTGTGCCG	AACATGCAGC	TTGATATGGA	AGAGGATAAG	GTGAAGGTTT	8760
TCATCAGGGA	AACCAGCTCC	TACTATGTCT	ACCACAAAGA	CGCTGCCGAG	AAAAATTGTT	8820
ATATGAAAGG	TCGAACCTTA	ATTAGACAGT	TCAGCTATGA	AAATCAAACC	ATTCCATTAC	8880
GCAGAAAAGC	GACAGTCGAT	ATGATTAAAG	AGAAGATTGC	GGAAGTGGAT	GCTTTGATTG	8940
AACTGGAAGT	AGAAAATCAA	TCTTATGTCA	CGATTAAAGA	TGAGTTAGTG	CATGAACTAG	9000
CAGCGTCTGA	ATTGAGAATC	AATGAGTTGC	AAGAACGAAT	GTCAACCTTG	AATCAAGTAG	9060
CAGAATATCT	ACTGGCTTCA	GTTGAAAGTA	AGCAAGAAAT	GAAATTAAAT	CTTTCAAAAC	9120
TGAATATAAC	TGAGAATATC	AGTGCTAATA	TTGTTGAGAA	AAAATTGAAG	AGCCTGGGGA	9180

520
ATCAACTGGA ATTGGAAAGG GGCAGGTATG AAAAGATGGT AGT 9223

(2) INFORMATION FOR SEQ ID NO: 60:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 6827 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 60:

TCTGCTGGCT ACCATCATCT GACTTGGGCA AGACCAAAGT CTTAGTTACA ACTGTATTCT	60
TCTCAGCATT TTCAATAACT GGCAATGCCG ACTGAAGCGT ATCTTTTCTCT GTTTTTGTAG	120
CTGGTCCAGT TTCTTTTTC TGTCCGCAAC CAACCAGGAC AAAAAGGAAA GCTAGACTAA	180
CAAGAACTAT TTTTTCATT TCTTCTTCT TTCTTTTGA AATTAAAATA GAATAAGACT	240
GGGAAGTGCT CCCAGCCTTG ATGTTTATAG AGCTGCACGC AAACGTGCTT CTGCATTTTC	300
TACATTACGG ACAGAGCGTG GTAGGAAGGC ACGAATATCG TCTTCCTTGT AGCCAACTTG	360
CAGGCGTTTT TCATCTACAA GGATTGGGCT CTTTAAAATT CTCGGTGTTT CCATAATCAG	420
ATTGAGAACT TCATTGACAC TCAAATCTTC AATATCCACT CCAAGGGCTT TGGCATAGCG	480
ATTTTGTAGAC GAAACGATGC TGGCTATTCC GTTATCTGTT TTGGTTAGAA TATCCAGTAA	540
TTCTTCTCTC GTAATTCCTT CTTTACCAAG GTTTTGTCTT TTATAACTTA ACTGGTGGGC	600
ATTGAGCCAG GTTTTGTGCTT TTTTACAGCT AGTACAACCT GAGACTGTAT AAATTTTAAT	660
CATGTACCTA CCCCTTTCGC TACATGTTAC TATCAGTTTA GTCTATTATA CCATAAAAAA	720
CATCCGACTT GCGACCTATT TTAAATTTTT TTTGACTTTT TTCGTCATTT TCGTACTTTT	780
TTCTTGACAA ACAACTAAAT GACTATCAAC TCTTTTGGAG CTAGGGTCAA TAATTCACAA	840
CCTGTCTCTG TAATCAGGAT ATCATCCTCG ATACGAACGC CATATTTGCC TTCGATATAG	900
ATACCTGGTT CATCGGTCAA GGCCATACCT GTCTTAATAG TTTCTGTAGA AGTCTGACTA	960
AAGTAGGGTT CCTCATGGAT ATCCAGACCA ATACCGTGGC CAATGCCGTG AGTAAAGTAG	1020
TCACCATAAC CTGCCTCAAT GATAATATCA CGAGGGATTT TGTCAAAGTC ACGGAAACCT	1080
AAGCCTGCCT TAGCTTGGTC AATCAAGGCT TGGTTAGCTT TTAGAACCGT ATTGTAAATC	1140
TCTGCCTGCT CATCGCTAAC ATGCCCTAGA TAGATAGTCC GGGTCATATC ACTGACATAG	1200
TGGTCATAGA GACAGCCGAA GTCCATGGTG ATGGCTTCTC CCAACTCCAC TGGTTTGTGC	1260
ATTGGATGGG CATGGGGTTT AGAAGAATTG ATACCGCTAG CTAGGATCGT ATCAAAAGAT	1320
AAGCCAGATG CTCCCAACTC ACGCATGCGG AAATCAAGGA AGTTGGCAAT CTCAATTTC	1380

521

GTTTTTCCTG	GTTTGATAAA	GTCAAGCGCA	TCGCGGAAAG	CTTGGTCTGA	GATAGAACAA	1440
GCCTTGCGAA	TCGCTGCAAT	CTCTGCCTCA	TCCTTAATCA	TACGAAGACC	TTCCACAAAC	1500
TGAGTTTGTG	GAAGCAAGTT	CAAACCTGCA	AAAGCTGCCT	GCATACGGTG	GTAATAAGAC	1560
ACTGAAATCT	CATCTTCAAA	ACCGATACGA	GTCAAGCCCA	TGTCCTTAAC	AATTCCTGCA	1620
ATGACAGCCA	ATTCATCACG	ATCAGCCACA	ATCTCAAAAC	CACTGGTTTC	TTGCTTAGCT	1680
GCGATGATAT	AGCGAGAGTC	TGTCACTAAG	ACCTGACGGT	CACGACTGAT	AAAGACTGTT	1740
CCGTTTGAGC	CCCAAAAACC	AGTCAAATAA	TAGACGTTTT	TAAGATTGTT	GATGATGATA	1800
CCATCTAGTT	CTTTTTCTTG	CATTTTAGCT	AGAAATGCTT	GTACGCGTTT	ATTCATGATG	1860
TAACTTTCCT	TTCAAATAGT	GTCCTGTATA	GCTGGCTTCG	TTGGCAGCTA	CTTCTTCTGG	1920
AGTTCCTGTT	ACGATGATGG	TTCCACCACC	GACACCGCCC	TCAGGTCCCA	AGTCAATGAT	1980
ATGGTCTGCC	GTCTTGATAA	CATCCAGATT	GTGCTCGATG	ACGAGGACTG	TATTGCCATC	2040
GTCTACAAAG	CGAGCTAAAA	CCTTGAGCAG	GCGAGCAATG	TCCTCTGTAT	GAAGCCCTGT	2100
CGTCGGCTCA	TCCAGAATGT	AGAAAGATTT	TCCTGTGCGT	CGTTTGTGGA	GTTCGCTAGC	2160
TAAC TTCATA	CGTTGGGCTT	CTCCCCCAGA	AAGGGTGGTA	GCTGGCTGTC	CCAAGGTCAC	2220
ATAGCCTAGC	CCTACATCCT	TGATGGTCTG	GAGTTTGCGT	TGAATTTTCG	GAATGTGTTG	2280
GAAAAATTCT	ACCGCATCGT	TGACCGTCAT	ATCCAAGACC	TGCGAAATAT	TCTTTTCCTT	2340
GTAGTGAAC	TCTAGGGTTT	CACTGTTATA	GCGGGTTCCG	TGGCAAACCT	CACAAGCCAC	2400
ATAAACATCT	GGCAAGAAGT	GCATCTCAAT	CTTGATAATC	CCGTCACCTG	AGCAAGCTTC	2460
ACAGCGACCT	CCCTTGACGT	TGAAACTGAA	GCGCCCCTTC	TTGTAGCCTC	GAATCTTGGC	2520
TTTCAATTTG	TGAGCAAAAA	GGTCACGTAT	ATCGTCAAAA	ACTCCTGTAT	AGGTAGCTGG	2580
GTTAGACCTC	GGCGTCCGTC	CGATAGGGCT	CTGGTCAATA	TCAATCAAAC	GGTCGACATG	2640
CTCAATCCCT	GTAATAGTCT	TAAACTTACC	AGGTTTGTCT	GAATTACGGT	TGAGCTTCTG	2700
GGCAATGGCT	TTTTTGAGAA	TGCTGTTGAT	TAGAGTCGAT	TTCCCTGAAC	CCGACACACC	2760
TGTCACTGCG	ATAAATTTTC	CTAGTGGA	GCGAGCCGTG	ACATTTTGCA	AGTTGTTCTC	2820
ACGCGCTCCT	ATCACTTCAA	TAAAACGACC	ATTTCGACA	CGGCGCTCTT	CTGGTACTGG	2880
GATGACACGT	TTGCCTGACA	AGTACTGACC	TGTGATAGAC	TTGCTGTTGC	GAGCCACTTG	2940
CTTAGGTGTA	CCTGCTGCAA	CAATCTCACC	ACCAAAAACA	CCGGCACCAG	GACCAACGTC	3000
AATCAGATAA	TCAGCCTCAC	GCATGGTATC	TTCGTCGTGT	TCCACCACGA	TAAGAGTATT	3060
GCCCAAGTCA	CGCATCTTTT	TCAGACTGGC	AATCAGGCGA	TCATTGTCCC	TCTGGTGAAG	3120

522

ACCGATTGAC	GGCTCGTCTA	GGATATAGAG	GACACCTGAT	AGGTTGGAAC	CAATCTGGGT	3180
TGCCAAACGA	ATGCGCTGAC	TTTCCCCACC	TGAAAGGGTT	CCTGCTGAAC	GTGACAGGGT	3240
TAGATAGTTA	AGACCCACAT	TATTAAGGAA	GGTCAAACGA	TCCTTGATTT	CCTTGAGAAT	3300
GGGACGAGCA	ATGATGGCTT	CATTTTCAGA	CAAAGTTAAC	TGGCTCACCA	AGTCCAAGTG	3360
GTCAGCGATA	GACAGGTCTG	AGATTTCTCC	AATATGTGGC	CCTTGCTGGC	CGCCACACG	3420
GACAGACAAG	GCCTGGTCAT	TGAGACGATA	GCCTTGACAG	GTTCCGCAGG	TCAGCTCATT	3480
CATGTAGAGA	CGCATCTGAG	TGCGAGTGTA	ATCGCTATTG	GTTTCATGGT	AACGACGTTT	3540
GATATTATTG	ATAACTCCCT	CAAACGGAAT	GTCGATATCG	CGCACGCCAC	CAAATTCATT	3600
CTCATAGTGG	AAATGGAATT	CCTTACCATC	TGACCCATAG	AGAATCAAGT	TCTTATCTTC	3660
TTCTGACAGG	TCCTCAAAAG	GCTTATCCAT	AGCCACTCCA	AAGACTTTCA	TGGCCTGCTC	3720
TAACATGTTT	GGATAGTAGT	TGGATGAGAT	AGGATTCCAA	GGTGCTAGCG	CTCCCTCACG	3780
TAAGGTTTTG	CTAGCATCTG	GCACTACCAA	ATCAGTATCC	ACCTCCAGCT	TGATGCCCAA	3840
GCCGTCACAC	TCACTACAAG	AGCCAAAAGG	AGCATTGAAA	GAAAAGAGAC	GAGGCTCTAA	3900
CTCTGGGACA	GTAAAACCAC	AAACTGGACA	GGCATAATGC	TCAGAGAACA	ACAACTCCGA	3960
GTCGTCCATG	GTGTCGATAA	TGACATAACC	TTCTGCAATA	CGAAGGGCAG	CCTCAATGGA	4020
ATCAAAGAGA	CGACTACGAA	TGCCCTCCTT	GATAACAATA	CGGTCAACCA	CGACATCGAT	4080
ATTGTGTTGC	TTGCTCTTAG	ACAACTCTGG	CACTTCGGTC	ACATCATAGA	CTTCCCCATC	4140
CACACGGACA	CGAACATACC	CGTCTTTCTG	AACCTTCTCG	ATAACACTCT	TATGTTGGCC	4200
TTTTTTCTTG	CGGATGACAG	GAGCCAAGAT	CTGCAAGCGC	TGGCGTTCAG	GTAACTCCAA	4260
AACCTTATCA	ACGATTTGCT	CCACAGAAGA	AGCATTGATA	GCTCCATGTC	CGTTGATACA	4320
GTAAGGCGTC	CCCACACGTG	CGTAGAGGAG	ACGCAGATAG	TCATTGATTT	CAGTCGTCGT	4380
TCCCACCGTC	GAGCGAGGAT	TTTTACTAGT	CGTTTTCTGG	TCGATGGAAA	TAGCTGGGCT	4440
GAGACCATCA	ATGGCATCTA	CATCTGGTTT	TTCCATATTT	CCCAAGAACT	GACGAGCGTA	4500
GGCGGACAAA	CTCTCTACAT	AGCGACGTTG	TCCCTCCGCA	TAGAGAGTAT	CAAAAGCCAG	4560
ACTGGACTTC	CCTGAACCTG	ACAAGCCAGT	CACGACAACC	AACTTGTCCTC	GCGGAATCTC	4620
CACATCAATA	TTTTTTTAAAT	TATGGGCACG	CGCCCCATGA	ATGACAATTT	TATCTTGCAT	4680
CTTTGTTCCT	TCTAGTCCAT	TATTGCTTAC	CATTATACCA	AAAAAAGTGA	GATTCTATTA	4740
CCCAAAGGC	CGATTTTGTA	GTATAATAGT	ACAGTGTGAA	AAAACTGAA	AAATGAGAAA	4800
GGATAAGGGA	TATGAAACAA	GTTTTTCTCT	CTACAACAAC	TGAATTTAAA	GAGATCGATA	4860
CGCTTGAACC	GGGTACTTGG	ATCAATCTCG	TCAATCCGAC	TCAAAATGAA	TCACTCGAAA	4920

523

TCGCCAACAC	CTTCGATATT	GATATTGCTG	ACCTTCGAGC	ACCGCTCGAT	GCGGAAGAAA	4980
TGTCTCGTAT	TACCATTTGAA	GACGAGTATA	CCCTGATTAT	CGTAGACGTG	CCGGTCACGG	5040
AGGAAAGAAA	TAACCGCACC	TACTACGTAA	CCATCCCGCT	TGGTATTATC	ATCACTGAGG	5100
AAACCATTAT	CACTACGTGT	TTGGAACCAC	TACCTGTCCT	TGATGTCTTT	ATCAACCGTC	5160
GATTGCGTAA	TTTCTATACC	TTCATGCGTT	CACGTTTTAT	CTTTCAAATT	CTTTATCGCA	5220
ATGCAGAGCT	TTACCTAACA	GCCCTTCGTT	CAATCGACCG	CAAGAGTGAA	CAAATCGAAA	5280
GTCAACTGCA	TCAATCAACT	CGTAATGAAG	AATTGATTGA	GCTCATGGAA	TTGGAAAAAA	5340
CTATCGTCTA	TTTCAAGGCC	TCCCTCAAAA	CAAATGAGCG	CGTGATTAAG	AAATTGACCA	5400
GTTCAACCAG	CAATATCAAG	AAATACCTTG	AGGACGAAGA	CCTGCTTGAA	GACACCCTGA	5460
TTGAAACCCA	ACAGGCCATC	GAGATGGCAG	ATATTTATGG	AAACGTCTTG	CATTCTATGA	5520
CAGAGACCTT	TGCCTCTATC	ATTTCTAACA	ACCAGAACAA	CATCATGAAA	ACCTTGGCCC	5580
TTGTGACCAT	CGTCATGTCC	ATCCCAACCA	TGGTCTTTTC	TGCCTACGGG	ATGAACTTTA	5640
AGGATAATGA	AATCCCCCTA	AACGGAGAGC	CAAATGCCTT	CTGGTTAATC	GTCTTTATCG	5700
CCTTTGCTAT	GAGTGTCTCG	CTCACTCTCT	ATCTCATCCA	TAAAAAATGG	TTCTAAGAGG	5760
AGTTCCTATG	TCTCAAATTG	ATCTACAAAA	ATtAACTAAG	AAAAACCAAG	AGTTTGTCCA	5820
CATTGCTACC	CAACAATTCA	TCAAAGATGG	GAAAACAGAC	GCTGAAATCC	AGACTATTTT	5880
TGAGGAAGTC	ATTCCCCAAA	TCCTTGAGGA	GCAATCTAAA	GGTACAACCTG	CCCGTTCCCT	5940
ATACGGCGCA	CCAACCTCATT	GGGCTCATAG	CTTCACTGTC	AAAGAGCAGT	ACGAAAAAGA	6000
GCATCCAAAA	GAAAATGATG	ACCCAAAACCT	GATGATTATG	GACTCAGCTC	TTTTCATCAC	6060
TAGCCTCTTT	GCCCTTGTC	GCGCCCTCAC	AACCTTCTTT	GCGGCAGACC	AAGCTTTCGG	6120
CTATGGATTG	ATTACTCTTC	TATTAGTTGG	ACTGGTTGGT	GGATTTGCCT	TCTACTTGAT	6180
GTACTACTTT	GTTTACCAAT	ACTATGGACC	AGATATGGAT	CGCAGTCAAC	GTCCACCTTT	6240
CTGGAAATCT	GTACTIONT	TCCTAGCTTC	TATGTTCCCT	TGGTTGCTTG	TCTTCTTTGC	6300
AACAAGCTTC	CTACCAGCTA	GCCTTAACCC	AGTACTGGAT	CCATTGCCAC	TAGCTATTAT	6360
TGGAGCAGCC	CTCCTAGCCC	TTGCTTCTA	TCTCAAGAAA	CGCTTGAATA	TCCGTAGTGC	6420
AAGTGCAGGA	CCAACACGCT	ATCAAGAATA	AGAAAACGAT	AAAAGCAACT	GCAGGTGCGG	6480
TTGCTTTTTT	ACTTACTTTT	TTGAGTTATA	TTCAATGAAA	ATCAAAGAGC	AAACTAGGAA	6540
GCTAGCTGCA	GGTTGCTCAA	AGCACAGCTT	TGAGGTTGCA	GATAAAACTG	ACGTGGTTTG	6600
AAGAGATTTT	CGAAGAGTAT	TAAAAGTATT	CTTCTGAAAT	CCCACATAGC	TTTCTCTTAT	6660

524

ATTTTGTGAT AAAATAGGCT CAATCTATTT CTAGGAGGAT GAGATATGGT TTCTACTATT	6720
GGTATTGTTA GTTTATCTAG TGGCATTATC GGAGAGGATT TTGTCAAACA CGAAGTGGAC	6780
TTGGGTATCC AACGTCTCAA GGATCTGGGA CTCAATCCCA TCTTTTTT	6827

(2) INFORMATION FOR SEQ ID NO: 61:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11864 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 61:

CTGGCTAGTT GCATAGAGCA AAGTTGCTTC TTCATCAACA AAACCGTTCA TTTCAAATA	60
GGAAAGCAGC TCATCAGGAC TCTCCAAACG AATCCCTTTG TAATCCAGCT CAACTGCCAC	120
CTCTTTCAAG GCTGCAAGAA GAAGTGTTCC CAGGCCCTGT CTCTGATGGT CAAACTCGAT	180
GACTAAAGAA TGTACTTTTA GACATTGCGG ATTGTCTGAC TGGGGACTTG ATAAAATATA	240
GCCTAAAAGT TGATTTTCAT CCCTAGCTAG AAGAAAGGTA TCCGCACACT TACGGATACT	300
TTCTTCTAAA ATATGGGAAA GTTGCTGCTT TTCAGCTGGA AAAGACGAGG TCTGAAGTGC	360
CCCTATCTCA GGCAAATCAG ACTTGCTTGC CTGAATGATC TTAATTGGAA TTTCCATGGG	420
AACATCCTAT TGAACATTGC TTGTCAAGTT AGACAAGAGA CGCTCAAATG AGTATTCATA	480
GGTTTGGATG TCTCCTGCTC CCATAAAGAC GTAAACAGCA TTGTCATGGT CTAGGAGTGG	540
AGAAACATTT TCAACAGTAA TCACTTGGTG TTTTTTGTTG ATTTTGTTGG CTAGGTCTTC	600
TACCTTAACG TCACCATGAT CTACTTCACG AGCCGAGCCA TAAATTTGCG CTAGATAAAC	660
AGCATCTGCT TGGTTTAAAG CATGGGCAAA GTCGTCCAAC AAGGCAATGG TTCTTGTAAG	720
GGTATGCGGT TGAAAGACTG CTACAATTTT CTTGCTTGGG TATTTCTGAC GAGCCGCATC	780
CAAGGTCGCA ATAATTTCTG TTGGATGGTG GGCAAAGTCA TCGATAATCA CTGTATCATT	840
GACAATTTTC TCAGTGAAAC GACGTTTAAC ACCGGCAAAT GTTTTCAAGT GCTCACGCAC	900
CAAGTTCAAA TCAAATCCTG CTGTGTAAAG AAGACCAATA ACGGCTGTCT CATTCATGAT	960
ATTGTGACGA CCAAAGGTTG GAATGTGGAA TTGCCCCAAG TTTTGTCCAC GGAAATGAAC	1020
GGTGAAGGTT GAACCAGTTA TTGAACGAAG AAGATCACTA GCTACAAAGT CATTGCCTTC	1080
AGCTTCAAAA CCATAATAAT AAATTGGTGC ATCAGACGTA ATCTTACGCA ATTCAGCATC	1140
TTCACCATAG AAAAAAGAC CCTTGGTGAT TTGTTTGGCA TAGTCGTTAA AGGCATTAAA	1200
AACATCCTCG AGACTTGTGA AATAATCTGG ATGGTCAAAG TCAATGTTGG TGATAATAGA	1260

525

GTATTCTGGG	TGGTAAGGCA	TGAAGTGACG	CTCATATTCTG	TCAGATTCAA	AGACAAAATA	1320
TTTGGCATTG	GCCGAACCAC	GACCTGTCCC	ATCTCCAATC	AAGAAGCTGG	TATCTGTAAT	1380
GTGAGACAAG	ACATGAGACA	ACATACCTGT	CGTTGAAGTT	TTTCCATGTG	CTCCTGCTAC	1440
TCCCATGCTA	ACAAAGTCAC	GCATAAAGCT	ACCTAGAAAC	TCATGGTAAC	GTTTGTAGCT	1500
GATACCATTT	TGGTCCGCAT	AGGCAATTTT	GACGTTGTTA	TCTGGACGAA	AGGCATTTCC	1560
AGCGATAATT	TCCATATCAC	CGTCTAGATT	TTTTTCATCA	AAAGGAAGAA	TGGTAATTCC	1620
TGCCTGCTCA	AGACCGCGTT	GGGTAAAGTA	GTAATTTTCA	ACATCTGATC	CCTGAACCTT	1680
GTGCCCCATC	TGGTGCAACA	TCAAGGCCAA	GGCACTCATC	CCTGATCCCT	TAATTCCGAT	1740
AAAATGATAT	GTCTTTGACA	TGTTTTCTCC	CCTATTCTGT	CATTCTGGTC	AGATTCAACT	1800
CTTGGGCAAC	CCGACGTTCT	TGTTCTGTTT	GTTTACTTTT	TTTATTGTAG	ATTTGGCTCT	1860
TCTTTAGAAA	ATCATAATTG	TTTTTCTTTG	GAGCAGGTGC	TGACACTTCT	TCATTCTTGG	1920
TAGGGATAGA	ATGAACTTCT	TCCGCCAAGA	TATAATGAGA	CTGGGTCAAT	TTTTGGCTAT	1980
ATTTGACAAA	TTCACCAGGA	TTTTCTTTT	GGAAAGGAGC	TGTCGGTTGA	TTGCCCTGTC	2040
TAAC TAGACT	GGGCTGAGAA	TGACGTCTCG	CAAGGCTGAA	ATCCTGAGTT	AGGTAGTTAG	2100
CAGAGCGTTT	CTTTTTCAAG	TCCGCACGCG	CTTCTTCACG	CGCCACCTCC	GCATAGCTCT	2160
TTCTTCTTTT	TTTAACCCCT	AAAGGAGCCT	TTTTAGGTTT	TTGACTTGC	TTTTCAATCG	2220
GTTTTACTGG	TTTTTCTTCA	GCAATAGGAG	CCCATTCTAA	ATAATTTTTA	TCTCGATACT	2280
CACCCTTGAT	ATTACTGATC	AGATCAGACT	CATCATAGAG	ATTCATGACT	GGCATTTTCA	2340
TCAACATGAC	CTCGTCATCT	GACACCAATG	GAAATCGTTC	TTGTTTCATT	TTCTATTTCC	2400
TTTCAACACT	TCATTATAGC	GTATTGTCTT	GATTTTTTCAA	GTGCTGGCTT	CAGAAATTCC	2460
CAAAATTTCT	CTAATTTCTG	CTAGGGTCAG	ACTACCACGT	GACTCTGTGC	CGTCCAATAC	2520
TTGTGACACC	AGATGTTTCT	TTTGTTCTTG	GAGTTCCTGA	ATTTTTTCTT	CAATGGTTCC	2580
CTTGGTCACC	AAGCGATAGA	CCTCAACCGT	TTCTTCCTGA	CCCATCCGAT	GGGCACGGCC	2640
AATGGCTTGC	GCTTCCACCG	CAGGATTCCA	CCAAAGGTCA	ACCAAGATCA	CTGTATCTGC	2700
ACCTGTCAGG	TTTCAACCGA	CCCCACCAGC	CTTGAGGGAA	ATCAGAAAGG	CATCTCTTTC	2760
TCCTTGTTTA	AAGGCCTTGG	TCATGTCTTG	TCTTTCCTTG	GCTGGGGTTG	AACCCGTAAT	2820
TTTAAAGGAA	GTCAGGCCCA	AGTCTGGCAG	TTCTTGTTCA	ATTTTTTCCA	ACATTCCTTT	2880
GAACTGAGAG	AAAATCAAGA	CACGGTGTCC	GCCGTCTGCC	ACCTGTACCA	GTAGGTCTCG	2940
GAGACTATCT	AGTTTGCCGC	TGGCTCCCTG	ATAATCTTCC	ATAAACAGGG	CAGGAGTGTC	3000

526						
ACATATTTGA	CGCAAGCGCA	TCAAACCAGA	TAAAATTTCC	ACACGACTTC	GCTGAAATTC	3060
CTGTTCTGAC	ACTTGAGCCA	GATGGTCTCG	CATCTGTTGT	AACTGGGCAA	GGTAAATAGC	3120
CTTTTGCTGG	TCTTCCAGTT	CATTTTATA	AACCACCTCA	ATCAAGTCTG	GCAATTCAGT	3180
CAGAACTTCT	TCTTCTTGC	GTCGCATCAC	GAAAGGCTTG	ATAAACTGAG	CCACTCGCTC	3240
TGCTGGCAAT	TTCATAAATT	CTTCTTGCT	TGGCAAAAGT	CCAGGCATGA	CGATTTGGAA	3300
AATAGACCAC	AACTCACCCA	GATGGTTTTT	AATCGGAGTT	CCTGACAAGG	CAAAGACCGA	3360
CGGCACCACA	AATTGTCTCA	AGGTCTGGGC	AATCTTGGTC	TGGGCATTTT	TCATGACCTG	3420
AGCCTCATCT	AAGAAAAGGA	AGTCAAAGGC	CATCCCTTGA	TAAAACTCAC	TGTCCTGACG	3480
GAAGGTGGCA	TAGCTAGTCA	CATAGATTTG	ATGGCTCTCG	GCAAGAATCT	CCTCACGACT	3540
TGCTTTCAAA	CCATGAACAA	CAGTCACATC	CAACTGTGGA	GCAAATTTCT	GAAACTCATC	3600
TGCCCAGTTG	TAAATCAAAC	CCGACGGAGC	GAGAATCAAA	ACCCGACTTT	CTTTTGTCAC	3660
TTGACTAGTC	AAAAAAGCAA	TGGTCTGAAG	GGTTTCCCA	AGTCCCATAT	CATCAGCCAA	3720
AATCCCACCA	AAACCATAAT	GATGGAGCAT	CTGCAACCAG	CCAATTCCCT	TTTCCTGATA	3780
ATCTCGCAAG	TCAGCCTTGA	CCTGAGTTGC	TTGCAAAGGA	AAGTCCTCTG	GATGCGTCAA	3840
ATCCTGGGCC	AGATTCTGGA	ATTCTTGTGA	AAAAGAAACA	CGGTCTCGCC	CTTCAAAGAG	3900
ATGAGCTAAA	CTGTAGGCCA	AGGATTTCCG	AGCCTGCAAG	GTCCCATCTT	TTAATTCAAA	3960
TTGCCCCAGT	TCCTGTAGAT	TTTGCGGAAT	TTTCTTGGTT	TCTTCATCGA	AAAAGTAAAC	4020
TTGATTAGAC	GAATCAATAT	AAAAATCCTG	ATTGGCAACC	AAGGCCTGCA	TGGCTTGGTC	4080
GATTTCCCTC	TGGACAATAT	TTTGAAAATC	AAACTGGATT	TCCAAGAGAC	CTCCCTTGGA	4140
GGCAATCTGC	ACCTGAGGAC	TCGCTAGGCT	ATAAAGCTCT	TCTAGTTTAT	CTGATAGGTC	4200
AACATGCCCC	AGTTTTTCAA	AGACTGGAAT	GATATCATGA	AAAAAATGAT	AGACAGACTC	4260
CGCTTTTAAG	GCCTGACGCC	AAGATTGAAA	ATCGGCCTCA	AAGCCCGCAG	CCAAACAGAC	4320
TTGGAAAATT	CTTTCTTCTA	AGTCTGCGTC	ACTTGAAAAG	GGTAATTCTT	CTAGCTCTTG	4380
TCGGCTAGAT	ACCTGTCTAT	TTCCATAATC	AAACTGAATT	TCTAAACGAA	TCCGATTATC	4440
TTCTTCCCTG	TCAAAGTAAA	AAGAGGGCGC	AAAAGTTTTG	ATTTGTAGAC	GTTCTGGAGC	4500
TGAAACGGTG	CCCATCTGGA	TAAAAAGAGT	CAGACAGGAG	GCCAATTTGT	CTCGATCACT	4560
GCTATCAAAT	TGCAGGTATT	TCTTTCCTTG	TTGACCCACA	GGTAACGCTT	TAATTTCTTT	4620
GAGAAGACGC	ATCTGCTGGT	CTGTTAAAAA	ATAAACCTGA	CCTTTATGGA	AAAGTACTGC	4680
TCCCTGATAA	AAGACATTGA	CCCTAGGACT	CTCACTGATT	TCCATTTCAA	AATAATCCGA	4740
GTATTCTGTT	ACTGTAAAGG	CAAATAGATT	GGCATCAGCA	TGCATATCCT	GAAAAAGCAG	4800

527

GGTTTGGTAG CTATCCACTT GATGGTCAAA TTGAAAATGG GGCAAGGCCA TCAGTAAATT	4860
CACACCCTGC TCAAAAAAGG TCAGAGGGAA AAAGAGGTGC CGACCTTGGT TTTGGAAAAA	4920
GAGGTCTGGA ACCAGCCCTT CCTCCGTTAG TCCGTGCAAG AAAGTCAAAA GTTC'TTGGCT	4980
GGCATCATCA AAGGCTTCCC AAGAAAGAGA CTCCTCATAA ATCTTGCCAA TCATATACGA	5040
CTTTCTCTGC TCGACAATCC TTAAAAAAG TGAATATCC CGAATGACAT AGTATTTTTG	5100
GCTATTGATT TGGCCGATTC TCAGAGTCCA CAAGATATGA TTGGTTCCTG CTTCCACCTG	5160
ACCCACAGCT GATAACTCAT AGGCGCATTC TGATTTTGGG GATAAAATTC GATCCAAAAA	5220
CTTGCCACCC AAGGTCACCT TGGTTTCAAC AGCCTCTTTT TCTTCATGAC CTTCTTCCAG	5280
ACTCCACAAG ATTTCCCTGAC CACGCTCATC ATTTTTCAGA AAATGCTCTA GCGCTGCCAA	5340
ATGCACACAG TAGCCCCTCT TTTGAAAAAA ATCACAGGCA CAAAAACCA AATCATCCTC	5400
TAAACTATAG CGCAGTTCTT CTTCTGCAAC GCGAGCGTAG AGCCGATTGT TCTTTTCCTT	5460
GATGATATCA ACCTTACCAG TTTCATAAAG GGCAACACCT TCGATACGAA TTTTCCCCGG	5520
AATCAATTTA GCCATATTTT CACCTTTACC TTATCTTTTT ATTATACCAT ATTTTCGCCT	5580
ATGAAAATAG CCTTCTAGGA AGACTTTTCT CCTAGAAGGC TGGATTTTTA ACGTTTGGCA	5640
AAAGTAGCCA CAATCCGCTG ACAGACTTCT TGCAACAGAG ATTTGGGCAT AGCTATATTG	5700
ATGCGGGCAT GGAGACTTCC TTCCTCTCCA AAATCCAAAC CACGGTTGAG GATAACCTTG	5760
GCTTCATTTT TCAACAATCT TTGCAATGTT TCATCAGTCA GGTCATAAGC TGAAAAGTCA	5820
AGCCAAATCA AGTAGGTACC TTGCGGTTTC ATGACCTTGA TTTTAGTCTC TTTTCCAAAT	5880
AGATCCATCA CATAATTGAT GTGGTCTTCA AAGACTTGCT TGAGTTCCTC TAGCCAATCT	5940
TTACCGTATC GATAGGCAGC TTCTGTCGCC AAATAACCCA AGCCTGAAAT TTCATGCTGA	6000
TTATTGGCCA ACAGGCGTTT CTGGAAAGCC AGTCTCAACT TAGGATTTTC AATGACTGCA	6060
TAGGAATTTT TTGTTCCAGC AATATTAAAT GTTTTAGTGG CACTGCTCAA GACGATAGCA	6120
AAATTTTTGA AGGCAGGATT GATGGTATTG AAAGACTGGT GTTTGTGACC AAAGAGGGTC	6180
AAATCTTGGT GAATCTCATC CGAAACTAAC AAAACACCGT GTTTTTGGCA GAGTTGGCCA	6240
ATCTTCTCCA AACTTCTTTT TTCCCAAACA CGTCCACCAG GATTGTGAGG GTTGCAAAGA	6300
ACATAGAGTT TAACCTCCTC TTCCACCAA TCCTTTTCAA GTTGGTCAAA GTCAATCTCA	6360
AACAGACTAT CCTTTTCCAC TAAGGAATTA GTAATCAATC TACGATTATT CAACTTGACA	6420
CTGCGAGCAA AGGGTGGGTA GACAGGCGTG TTAATTAAAA CCGCCTCGCC TTCTTTTGTA	6480
AAGGTTTGAA TAGCTGTTGA GATGGCTGGT ACCACACCTT CGATAAAGAC AAGAGCCTCT	6540

528

TTGTCAAAGT	TGTAACCGTA	TTGTGTAGCT	TCCCACCTTTT	GAACCTCCTT	AATTAAGTCT	6600
TCACTGGCAT	AGGTATAACC	ATAAACCAGT	TGGTCTGCGT	AAGTTTGAC	GGCTTGGCGG	6660
ATTTCAAGCA	AGACCACAAA	GTCCATATCC	GCTATCCAAG	CTGGTAGAAC	TTCATATCC	6720
GTTTCTGTTT	CTTTCCATTT	ATAGGTATGG	TGCCCTAAAC	GGTTGGGCAG	GCTTGTAATA	6780
TCATATTTTC	CCATCTTTGT	CTTATCCTTC	TATGGCTTGG	CGCAAATCTG	CAATCAAATC	6840
TCTAGCATCC	TCAATCCCAA	TAGACAAACG	CAAGAGGTCA	TCTGTCAAAC	CATAAGAATG	6900
GCGTACCTCT	GCTGGAATAT	CAGCATGAGT	TTGAGTCGTT	GGATAAGTAA	TAAGACTTTC	6960
CACTCCACCC	AAACTTTCCG	CAAAAGAGAA	GACCTTGAGA	CTGTTCAAAA	TATGAGGAAT	7020
GCGTGTTC	TCGGCTACTT	TAAAGGAAAT	CATGCCCTCA	CGACCAGTGT	AGAGAACTTC	7080
CTTAACTGCT	GGAGAATCCT	TCAAAAAGGC	AACCACTTCT	TGGGCGTTAG	CTGTTGAGCG	7140
CTCCATACGA	AGAGACAAGG	TCTTGAGACC	ACGAAGCAAC	TGGTAGCTGT	CAAATGGAGA	7200
CAAGACTGCC	CCTGTTGTAT	TAAGATTGTA	AAAAAGCTTC	TCGTATAGTT	CTAAACTATT	7260
GGTCACAACC	ACTCCAGCCA	AGACATCATT	GTGGCCTGCT	AGATACTTGG	TTGCTGAATG	7320
GAGAACGATA	TCTGCTCCAT	CTTCAATCGG	ACGTTGGTAG	ATAGGGCTAT	AGAAGGTATT	7380
GTCCACCACC	ACTTTGGCAC	CCTTAGCATG	AGCCAATTTT	GCTAGTTTTT	CGATATCAAA	7440
TTCCAACATC	AAGGGATTGG	TTGGGGTTTC	GATATAGAGA	ACATCCACAT	CCTTTTCTAA	7500
CTCGGCAATC	AACTCTTCTT	CTGTATTGGC	ATAGGTAAAA	TGGAAATGAC	CTTCCTGCTC	7560
CACTTGGTTA	AACCAGCGAA	AAGAACCACC	GTAAAGATCA	CGCACTGCCA	AGACCTTACT	7620
TCCTACTGGA	AAGACGCTAA	AGGCCAGTAC	AATAGCTGAC	ATCCCTGAGC	TAGTCGCTAG	7680
GGCATAGTCT	GCTGACTCAA	TAGCCGCCAA	GACTTCCTCA	GCCTTACTAC	GAGTTGGATT	7740
TTTAGTGCGC	GTATAGTCAA	ACCCAGTAGA	TCGACCAAAC	TCTGGATGCT	GATAGGTCGT	7800
TGAAAAATGA	AGTGGTGTCA	CCAAAGCACC	TGTTGCCTCA	TCAGACTTGA	TCCCTGCTTG	7860
TGCTAAAATT	GTGTTAATGT	GTAATTCCTT	GCTCATACAA	TTCCTCCAAA	TCTATAGTAA	7920
CTATTGTACC	ACTTATTTTG	TATCCTTCGT	TTTCTTGTTT	TCAAGAGCTA	GTTATAGTTT	7980
CAAACTATAT	AAAAAGGGAG	TTTTTCCTGC	TCCCTTTAAT	AGACTATAAA	ATGGTGAATC	8040
TCAAAAGACA	CCTTCACTCT	ATCATTTGCT	CCTGCACAAA	ACGAGCATAA	CGCTCATGAT	8100
TTTCCAGTAG	TTCCTTATGA	GTTCTGAGC	CAGTGATTTT	CCCCTCCTCT	AAGAAGAAAA	8160
TACAATCCAC	ATCTTTTACC	GTTGACAAAC	GATGCGCTAT	AATCACAACC	GTCTTCTCCT	8220
TTAGTACAGA	ATAGAGGCTA	CTGATAATCG	CATACTCAGA	ATCCGCATCA	AGATTAGCAG	8280
TGGCTTCATC	AAATATAAGA	ATTTTCAGCAT	CTTTTAAGTA	GGCTCTAGCT	ATTTGAAGTC	8340

TTTCGTTTCGC	CCCCCTGACA	AGAGTCGTCC	GCGTTCACCA	ACTTCAGTAT	CTAGTCCCTC	8400
TTTCATGGAG	CGAATCTCAT	CACCTAGTGA	TACTAAGTCT	AGCACTTTCA	TCAATTCATC	8460
ATCAGTTACT	AAGCGATTCA	AACCGAGACA	AAGATTGTCA	CGAATACTGC	CAGATAAGAC	8520
TGCATTATTT	TGTGAAACCC	AAGCGATTTT	ACTTCTCCAT	TCTTTTAAGT	TAAAATCATA	8580
TATACTTGAT	TGCTCCATTA	GAATATCTCC	TGAAAGCGGT	TTATAAAACC	GCTCTAACAA	8640
ACGCACAATC	GTTGATTTTC	CTGATCCAGA	TGGTCCAACA	AAAGCAATTT	TTTGCCCCCTT	8700
GAAAATTGAA	CAAGTAATAT	CCTTTAAGAC	AGGTCGATTT	TCATCATAAC	CAAAATAGAC	8760
ATGGTTAAAA	TTCAACCCTC	GTCCTGATAC	CGATTTTCCT	CCCTCAAATT	TTTCTTTAGG	8820
AACTGCAAGC	AAGTTCTCCA	GTGCAACTGA	AGATCCCTTG	CTCCTAGAAT	AAACAGTTAC	8880
AAAATTAGCT	ATATTACTAA	TAGGATTAAG	TAATTGAAAG	AGGTAAATCA	AAAACGAAAC	8940
CAAGGTTCCC	ACAGATATAT	ATCCTGCGCT	GACCCGATAA	CCCCCATAGG	TTAGCATCAC	9000
AGCTATAGTC	GCAAAGATAA	ATAAGAGAGC	AAACGGGGTC	TCAAAAGAAG	TAACCCTATC	9060
TGATTTTCAGT	GAATTGTTTT	GTACCCTTTC	AATACAATTA	TCCAAAACAT	CCTGTACACT	9120
TTTCTCTGCT	TGGTTAGTCT	TAATTAATTC	ATGTTCTTGA	ATCTTTTCAG	TCAATTGCCC	9180
TGTTAAATTT	CCTCCTGTAA	ACGACGACTA	TACTTTTCAC	TGATATTGGA	AAGGGGCAAG	9240
ATAATAAACA	TCATACAAGG	AAGAGTGATG	AATAAAAGTA	GAGAAAGATT	CCAATCAAGA	9300
CTAAATAAGA	CTACAATGGA	ACCAAGTACC	ATAACTAAAC	TCAGAATAAT	ATTTGGGAAA	9360
GTCGTAATTA	AAAACTCACG	AATGACACTC	GTGTCATTGA	CAATGGCAGA	AGTCAACTCC	9420
CCACTTTGGC	TCTTATCAAA	GAAGGATTTT	TCTACATAAA	TCAACCCCTC	TATCACTTTT	9480
TTCTTGATTT	TTGCTATCTT	TTTTTCACCC	GATTGACTAA	ACAGATAGTA	ACCAATAGAA	9540
GAAAACAAGG	CTTGACCAAT	AAAAATCAAA	AACGATTGAA	ATACTTTGGA	GCCTATATTT	9600
TCAATAGAAC	TCCCATCTAT	TAAATCCTTT	AAGATAAGGG	GAAGCAACAA	AGCAAGTAGA	9660
CTAGACAGAA	CAAGTAAGAA	ACTCCCCATA	ATCACCTTAG	TATCTACTCT	TAATAATTTT	9720
AATTTCATAA	ATACTCCTTA	TAATATTTCA	ACGGATAAAG	TCGGGAATAA	CTCAATTTGA	9780
GGATAAAATC	TAATAAATCT	TCCTATAACA	AAACGCATAA	CATCTAGGAT	TTTATATACC	9840
TGATATTATG	CGTTTTTAAG	CACAAAGACT	TCTTACACAA	ACTTATCTAC	AATTAGATTT	9900
TATTTGACAT	GTTTTGCCAA	TTCTTCTTGG	GCTTTTTTTAT	TGGATTCTTC	TTTTTCTTTC	9960
AACCATTTTT	CTCTGGCTTT	TGCATATTCG	TCTGTTGTGA	CAATCTTATC	TTGTACTTTG	10020
AGGTATTTAT	ATGATTCAAC	CCCTTTTGTA	CCGGTTAAAC	CATAGGCAGC	AGCAAATGGT	10080

530

ACGGTTCTTC	TCAATGATGG	TGTTCCCCCA	CGCGAAACAC	TTGGAAGAAC	TAAAGAACTA	10140
TCAATCAACC	AAGCTTGAAT	ATCAGCATAT	TTCTCATAAC	GTTTGGCCGG	ATCTTGCTCT	10200
TTATTAGCTT	CTTCCAACAT	TTGAGTATAG	ACATCCAGTC	CAACTGCCTT	AGCCTTGTCA	10260
TTGGCCTCAC	CAGGCTCTAG	TCCAAGATTT	TGCAGAAATC	CTCCACTATT	AGTATTAAAA	10320
ATATCGAGAT	AGGTTGACGG	GTCTTGATAA	TCAGGTCCCC	AACCGCCATG	ATATAAATCA	10380
TAATCTTTCT	GAGCAGCTGT	TTGAGCAAAG	TAGCCTGAAC	TGTCAAACCTC	ATCTGATGTT	10440
AATTGCTGAA	TGTCAATCAC	TACATTATCA	GAACCTAAAA	CAGATTCAAT	TGATTGTTTG	10500
ATAGAACTAA	CTCCTTGTAT	GCCTACTTTA	TCTGTTACTT	CCACAGTCTT	ATCCAAGTGG	10560
ATTGGGAATT	GAACACCCTT	TGCTTCGAGT	TCTTTCTTAG	CTTCCGCAA	CTTAGCCTTG	10620
GCTTTCTCAG	GATTGTAGTA	AGGGTCTTGA	CCATCCGCAA	AGTTGATACC	TTGCCATTCC	10680
TTACCATAGT	TGACCATCTT	AGAGGCTACA	ACTTCACCAA	AGTCTTTTCC	CTTGATACTG	10740
ACAAAGTTTG	GAGGAACCAC	TAGGTTACGC	AAAATCTTTG	TTGCACCTTC	TTTCCCTTCA	10800
GACTGAGCCC	CATAAGATGT	TCTGTCAAAA	GCAAATTTGA	TAGCCTGACG	GAAGTTTTTA	10860
TTGAGAACTG	CTTCCTGAGT	CGATTTCTTT	TCAATGTCAC	TTGTTTTAGA	AGTATAATTG	10920
TAAGACTTCC	TATCTAGGTT	AAAATTAAAG	AAATATGAAG	TTGAATTTTG	CATACTATAG	10980
ATGATATTGT	TTTTGTATTT	TTCTTTAATC	CCTTCATAGC	TGGAGCTGTT	AGGAAAAAGA	11040
CGAGCCGTAG	TATAAGCACC	AGCTGTAAAA	TTACGTTCCA	GTGATTCTTG	GTCGCTACCA	11100
TCATAGTAGG	TCAATTTTAC	ATCGTCTACA	AAGACATTCT	TAGCATCCCA	GTAATTAGGG	11160
TTTTTCTTAT	ATTCAATAGC	AGATTTTGAG	ACAAGTGCTT	TCATCAAGAA	AGGTCCATTG	11220
TACAAAATAC	TAGATGGATC	CGCCTTCCCA	AAATCATCCC	CTTTTGATTT	CAGGAAATCT	11280
GCATTAACAG	GAAAAAGTAT	CGTTGCAAGT	GTTTTTGAAT	TCCAGTAAAG	TTCTGGTTTA	11340
ACCAAAGTAT	ATTGAACCGT	TTGGTCATCA	AGTGCCTTGA	CACCGACAGT	TGAAAAGTCG	11400
CTTGTTTTAC	CAGTGATATA	GTCATCCAAA	CCAGCAACAG	AGTCCTGCAC	TAGATACAAG	11460
GCTTCTGATT	TTTTATCAGC	TGCATATTGC	AAACCTGTCA	CAAAATCCTG	GGCAGTTACA	11520
GGCGCATATT	CTTCTCCCTC	AGAAGTAAAC	CACTTGGCAT	CCTTACGAAG	TTTGTAGGTA	11580
TAGGTCAAAC	CGTCCTGAGA	AACAGTCCAA	TCCTCTGCTA	ATGATGGAAT	AATATTCCCA	11640
TATTGGTCAT	TTTCTAATAA	CCCGTCTACC	AAATTTGCAA	CAATATCGGA	TGTTGCTGCG	11700
CGGTTTTCTG	CTAGATAGTT	CAAGCTAGAT	GGATCACTTG	AATAAACATA	GTTGTAGGTT	11760
TTTGACGCCG	TGCTAGAATT	TCCACACGCG	CTCAATAAAA	CTCCTGTACC	CAGGACAAGA	11820
CCTGCCAAGG	TTAGATATTT	GCTCTTAGAC	TTTTTCATTT	CCGG		11864

531

(2) INFORMATION FOR SEQ ID NO: 62:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2412 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 62:

TAACTGCACT AAACATAATA TAAGGAGAGA AAATGTCTGC AATAGAACGT ATTACAAAAG	60
CTGCTCACTT AATTGATATG AACGATATTA TCCGTGAAGG GAATCCTACT CTACGCGCGA	120
TTGCTGAGGA AGTCACTTTC CCCCTATCTG ACCAGGAAAT CATCCTAGGC GAAAAGATGA	180
TGCAATTCCT TAAACATTCC CAAGATCCTG TCATGGCTGA AAAAATGGGA CTCCGCGGTG	240
GTGTTGGACT GGCTGCTCCC CAGTTAGATA TCTCAAACG CATTATCGCT GTTTTGGTAC	300
CTAATATTGT TGAAGAAGGC GAAACTCCAC AGGAAGCCTA CGATTTGGAA GCCATTATGT	360
ACAATCCAAA AATCGTCTCT CACTCTGTTC AAGATGCTGC TCTTGGCGAA GGAGAAGGTT	420
GCCTGTCTGT TGACCGTAAC GTGCCTGGCT ATGTTGTTTCG CCATGCCCCG GTTACTGTTG	480
ACTACTTTGA CAAAGATGGA GAAAAACACC GTATCAAAC CAAAGGCTAC AACTCCATTG	540
TTGTTGAGCA TGAAATTGAC CACATTAACG GTATCATGTT TTACGATCGC ATCAATGAAA	600
AAGACCCATT TGCAGTAAA GATGGTTTAC TGATTCTTGA ATAAAGAAAA TCCCGTTGCA	660
AGACGGGGTT TTGTGTTATA ATAGAGGCAT GAAAACAAAT GATATTGTCT ATGGTGTCCA	720
CGCCGTTACC GAAGCCCTCC TTGCAAATAC AGGAAACAAA CTCTACCTCC AAGAAGATCT	780
CCGAGGTAAG AATGTTGAGA AAGTCAAGGA ACTAGCTACA GAAAAGAAGG TGTCCATTTC	840
TTGGACATCA AAAAAATCTC TCTCTGAGAT TACTGAAGGT GCTGTTTCATC AAGGTTTGT	900
TCTACGAGTG TCTGAATTTG CCTATAGCGA GCTAGATTAC ATCCTTGCAA AAACACGCCA	960
AGAAGAAAAT CCACTTCTAT TGATTCTAGA TGGTCTAACC GATCCCCATA ATCTGGGTTC	1020
TATCTTGCGA ACAGCCGATG CGACCAATGT TTCAGGTGTC ATCATTCCTA AGCACCCTAC	1080
TGTCGGAGTA ACTCCTGTCT TTGCCAAAAC AGCCACAGGT GCTATTGAAC ACGTtCCAAT	1140
TGCCCCGAGTG ACCAACCTCA GTCAAACCTT AGGATAAACT TAAGGATGAA GGTTCCTGGA	1200
CCTTTGGAAC GGATATGAAC GGTACTCCTT GCCACAAGTG GAATACAAAA GGGAAAATCG	1260
CCCTCATCAT TGGAATGAA GGAAAAGGTA TCTCTAGCAA CATCAAAAAA CAGGTCGATG	1320
AAATGATTAC CATTCGATG AATGGACATG TTCAAAGCCT TAATGCCAGT GTTGCTGCGG	1380

532

CCATTCTCAT GTACGAAGTT TTCCGAAATA GACTATAAAA AAGTTTCCAG TCATCTGATT	1440
GGAAACTTTT TTATGATTAA CTATGTTCTG TAATGAATTT ATAGGCTTCT TGACCAGCGA	1500
TAGCTCCATC TCCAACCGCT GTTGTACTT GCGGAAGGTC TTTCAAGCGA ACATCTCCAA	1560
CTGCAAAGAT ACCGTCGACT GCAGTTTTCA TGTGGTTATC TGTCACAATC CATCCTGCCT	1620
GATCTTGGAT ATTCAATTCT TTAACAAAAT CGCTAAGAGG GTCCAAACCA ACATAGATAA	1680
AGACACCACC GAAGGCTTGT TCTGTCACTT GACCTGTTTT CACATTTTCA AATACGACTG	1740
ATTCTACTCG GTTTTCACCC TTGATTTCCC TTAACACAGA ATCCCAGATA AAGCTGATTT	1800
TTTCATTTCG AAAGGCGCGA TCTTGTAATA CCTTTTGGGC ACGAAGTTGG TCACGACGGT	1860
GAACAATGGT AACAGTCTTA GCAAAACGAG TCAAGAAGAG GGCTTCTTCA ACAGCTGAAT	1920
CTCCACCACC AACTACCAAT AAATCTTGGT CACGGAAGAA AGCACCATCA CACACAGCAC	1980
AGTAAGAAAC ACCACGACTG TTCAGTTCTT CTTCTCCAGG CACTCCCCAA GGACGGTGTT	2040
TAGAACCAGT TGCTACGATA ACTGTACGTG TTTCATATGT TTGGTCATCA GTCATCACTT	2100
TCTTAAAATC ACCATGGCTT CGACATTTTC AACATAACCA TAAATGTGCT CAACACCAAG	2160
ATTTTCAAGT GGTTCAAACA TCTTTTCAGC CAATTCAGGT CCACTAATAT TAGCGTATCC	2220
TGGGTAATTT TCGATATCAG ATGTATTATT CATCTGACCA CCTGGCAGAC CACCTTCAAT	2280
CAAAGCTACT TTTAGATTGC TTCGAGCAGC ATACAAGGCC GCAGTCATCC cTGCAGGTCC	2340
AGCACCGATA ATAATAGTAT CGTACATATA GATTCCTTCT TTCTTGGTGT AACTATCTTT	2400
ATTCTAACTC TG	2412

(2) INFORMATION FOR SEQ ID NO: 63:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7760 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 63:

CCGATTTGGT GGAATTTTGT TCTCATCATT TAGAAGGTGT TGCAAGAGCA GAGTTTACCT	60
TGGTGCTTCA TACCAAATTG GGAGAAGCCT CTGTTTTGGC AAATATTGTA GATGTAAACA	120
AGGATGAATG GATTTTAGGA ACAGTTGCTG GTGCCAATAC CTTATTGGTT ATTTGTCGAG	180
ATCAGCACGT TGCCAAACTC ATGGAAGATC GTTTGCTAGA TTTGATGAAA GATAAGTAAG	240
GTCTTGGGAG TTGCTCTCAA GACTTATTTT TGAAAAGGAG AGACAGAAAA TGGCGATAGA	300
AAAGTTATCA CCCGGCATGC AACAGTATGT GGATATTAAA AAGCAATATC CAGATGCTTT	360

533

TTTGCTCTTT	CGGATGGGTG	ATTTTTATGA	ATTATTTTAT	GAGGATGCGG	TCAATGCTGC	420
GCAGATTCTG	GAAATTTCCCT	TAACGAGTCG	CAACAAGAAT	GCCGACAATC	CGATCCCTAT	480
GGCGGGTGTT	CCCTATCATT	CTGCCCAACA	GTATATCGAT	GTCTTGATTG	AGCAGGGTTA	540
TAAGGTGGCT	ATCGCAGAGC	AGATGGAAGA	TCCTAAACAA	GCAGTTGGGG	TTGTTAAACG	600
AGAGGTTGTT	CAGGTCATTA	CGCCAGGGAC	AGTGGTCGAT	AGCAGTAAGC	CGGACAGTCA	660
GAATAATTTT	TTGGTTTCCA	TAGACCGCGA	AGGCAATCAA	TTTGGCCTAG	CTTATATGGA	720
TTTGGTGACG	GGTGACTTTT	ATGTGACAGG	TCTTTTGGAT	TTCACGCTGG	TTTGTGGGGA	780
AATCCGTAAC	CTCAAGGCTC	GAGAAGTGGT	GTTGGGTTAT	GACTTGTCTG	AGGAAGAAGA	840
ACAAATCCTC	AGCCGCCAGA	TGAATCTGGT	ACTCTCTTAT	GAAAAAGAAA	GCTTTGAAGA	900
CCTTCATTTA	TTGGATTTGC	GATTGGCAAC	GGTGGAGCAA	ACGGCATCTA	GTAAGCTGCT	960
CCAGTATGTT	CATCGGACTC	AGATGAGGGA	ATTGAACCAC	CTCAAACCTG	TTATCCGCTA	1020
CGAAATTAAG	GATTTCTTGC	AGATGGATTA	TGCGACCAAG	GCTAGTCTGG	ATTTGGTTGA	1080
GAATGCTCGC	TCAGGTAAGA	AACAAGGCAG	TCTTTTCTGG	CTTTTGGATG	AAACCAAAAC	1140
GGCTATGGGG	ATGCGTCTCT	TGCGTTCTTG	GATTCATCGC	CCCTTGATTG	ATAAGGAACG	1200
AATCGTCCAA	CGTCAAGAAG	TAGTGCAGGT	CTTTCTCGAC	CATTTCTTTG	AGCGTAGTGA	1260
CTTGACAGAC	AGTCTCAAGG	GTGTTTATGA	CATTGAGCGC	TTGGCTAGTC	GTGTTTCTTT	1320
TGGCAAAACC	AATCCAAAGG	ATCTCTTGCA	GTTGGCGACT	ACCTTGTCTA	GTGTGCCACG	1380
GATTCGTGCG	ATTTTAGAAG	GGATGGAGCA	ACCTACTCTA	GCCTATCTCA	TCGCACAAC	1440
GGATGCAATC	CCTGAGTTGG	AGAGTTTGAT	TAGCGCAGCG	ATTGCTCCTG	AAGCTCCTCA	1500
TGTGATTACA	GATGGGGGAA	TTATCCGGAC	TGGATTTGAT	GAGACTTTAG	ACAAGTATCG	1560
TTGCGTTCTC	AGAGAAGGGA	CTAGCTGGAT	TGCTGAGATT	GAGGCTAAGG	AGCGAGAAAA	1620
CTCTGGTATC	AGCACGCTCA	AGATTGACTA	CAATAAAAAG	GATGGCTACT	ATTTTCATGT	1680
GACCAATTCG	CAACTAGGAA	ATGTGCCAGC	TCACTTTTTC	CGCAAGGCGA	CGCTGAAAAA	1740
CTCAGAACGC	TTTGGAACCG	AAGAATTAGC	CCGTATCGAG	GGAGATATGC	TTGAGGCGCG	1800
TGAGAAGTCA	GCCAACCTCG	AATACGAAAT	ATTTATGCGC	ATTCTGTAAG	AGGTCGGCAA	1860
GTACATCCAG	CGTTTACAAG	CTCTAGCCCA	AGGAATTGCG	ACGGTTGATG	TCTTACAGAG	1920
TCTGGCGGTT	GTGGCTGAAA	CCCAGCATTT	GATTCGACCT	GAGTTTGGTG	ACGATTCACA	1980
AATTGATATC	CGGAAAGGGC	GCCATGCTGT	CGTTGAAAAG	GTTATGGGGG	CTCAGACCTA	2040
TATTCCAAAT	ACGATTCAGA	TGGCAGAAGA	TACCAGTATT	CAACTGGTTA	CAGGGCCAAA	2100

534

CATGAGTGGG AAGTCTACCT ATATGCGTCA GTTAGCCATG ACGGCGGTTA TGGCCCAGCT	2160
GGGTTCCTAT GTTCCTGCTG AAAGCGCCCA TTTACCGATT TTTGATGCGA TTTTACCCG	2220
TATCGGAGCA GCAGATGACT TGGTTTCGGG TCAGTCAACC TTTATGGTGG AGATGATGGA	2280
GGCCAATAAT GCCATTTTCGC ATGCGACCAA GAACTCTCTC ATTCTCTTTG ATGAATTGGG	2340
ACGTGGAAC T GCAACTTATG ACGGGATGGC TCTTGCTCAG TCCATCATCG AATATATCCA	2400
TGAGCACATC GGAGCTAAGA CCCTCTTTGC GACCCACTAC CATGAGTTGA CTAGTCTGGA	2460
GTCTAGTTTA CAACACTTGG TCAATGTCCA CGTGGCAACT TTGGAGCAGG ATGGGCAGGT	2520
CACCTTCCTT CACAAGATTG AACC GGGACC AGCTGATAAA TCTACGGTAT CCATGTTGCC	2580
AAGATTGCTG GCTTGCCAGC AGACCTTTTA GCAAGGGCGG ATAAGATTTT GACTCAGCTA	2640
GAGAATCAAG GAACAGAGAG TCCTCCTCCC ATGAGACAAA CTAGTGCTGT CACTGAACAG	2700
ATTTCACTCT TTGATAGGGC AGAAGAGCAT CCTATCCTAG CAGAATTAGC TAAACTGGAT	2760
GTGTATAATA TGACACCTAT GCAGGTTATG AATGTCTTAG TAGAGTTAAA ACAGAACTA	2820
TAAAACCAAG ACTCACTAGT TAATCTAGCT GTATCAAGGA GACTTCTTTG ACAATTCTCC	2880
ACTTTTTTGC TAGAATAACA TCACACAAAC AGAATGAAAA GGAGCTGACG CATTGTCGCT	2940
CCCTTTTGTC TATTTTTTAA GGAGAAAGTA TGCTGATTCA GAAAATAAAA ACCTACAAGT	3000
GGCAGGCCCT GGCTTCGCTC CTGATGACAG GCTTGATGGT TGCTAGTTCA CTTCTGCAAC	3060
CGCGTTATCT GCAGGAAGTC TTAGGCGCCC TCCTTACTGG GAAATATGAA GCTATTTATA	3120
GATCGGGGC TTGGTTGATT GGTGTGGCCG TAGTCGGTCT AGTTGCTGGT GGACTCAATG	3180
TTGTCCTCGC AGCCTATATT GCCCAAGGAG TTTCATCCGA CCTTCGGGAG GATGCCTTCC	3240
GTAAAATTCA AACCTTTTCT TATGCTGATA TTGAACAATT TAATGCGGGA AATCTAGTCG	3300
TTCGAATGAC AAATGATATC AACCAGATTC AGAACGTTGT CATGATGACC TTCCAAATTC	3360
TTTTCAGACT TCCCCTCTTG TTCATCGGTT CGTTTATCCT AGCGGTTCAA ACCTTACCTT	3420
CTCTGTGGTG GGTGATTGTT CTCATGGTAG TCTTGATTTT TGGTTTGA CTGTGCATGA	3480
TGGGAATGAT GGGGCCTCGT TTTGCCAAGT TTCAAACCCT TCTTGAGCGC ATCAATGCCA	3540
TTGCCAAGGA AAATTTACGT GCGGTTTCGT TGGTCAAGTC CTTTGTCCAA GAAAAAGAGC	3600
AATTTGCTAA GTTTACAGAG GTCTCAGACG AGCTTCTTGG TCAAAACCTT TACATTGGTT	3660
ATGCCTTTTC AGTAGTGGAA CCCTTTATGA TGTGTTGGT TTACGGGGCG GTCTTCCTCT	3720
CTATTTGGCT GGTCGCGGGA ATGGTTCAGT CGGATCCGTC TGTGTTGGT TCCATCGCTT	3780
CTTTTGTTAA TTACCTAAGC CAGATTATCT TTACCATTGT TATGGTTGGA TTTTGGGAA	3840
ATTCTGTCAG CCGTGCCATG ATTTCCATGC GTCGTATTCG AGAAATTCCT GACGCAGAGC	3900

535

CAGCTATGAC	CTTCAAGGAT	ATCCCAGATG	AAGAGTTGGT	TGGAAGTCTT	AGCTTTGAAA	3960
ATGTGACCTT	TACCTATCCA	ATGGACAAGG	AACCGATGCT	GAAAGATGTG	AGCTTTACTA	4020
TTGAACCTGG	TCAAATGGTT	GGTGTAGTTG	GAGCGACTGG	TGCAGGAAAG	TCAACCTTGG	4080
CTCAATTGAT	TCCACGTCTC	TTTGATCCAC	AGGACGGGGC	CATTAAAATC	GGTGGCAAGG	4140
ATATTCGAGA	AGTGAGTGAA	GGAACCCTGC	GTAAAACAGT	TTCCATCGTT	CTCCAACGTG	4200
CCATTCTTTT	TAGTGAACG	ATTGCAGATA	ACTTGAGACA	GGGGAAGGGG	AATGCTACTC	4260
TATTTGAAAT	GGAGCGCGCA	GCCAATATTG	CCCAGGCTAG	TGAATTCATT	CATCGTATGG	4320
AGAAAACCTT	TGAAAGTCCA	GTTGAAGAAC	GGGGAACCAA	TTTCTCTGGT	GGACAAAAAC	4380
AAAGGATGTC	GATTGCGCGT	GGGATTGTCA	GCAATCCACG	TATTCTGATT	TTTGATGATT	4440
CGACCTCAGC	CTTGGATGCC	AAATCAGAGC	GCTTGGTGCA	AGAAGCTTTG	AATAAGGACT	4500
TGAAGGGGAC	GACAACCATT	ATTATTGCTC	AAAAAATTAG	CTCGGTTGTC	CATGCAGACA	4560
AGATCTTGGT	TCTAAATCAA	GGACGATTGA	TTGGTCAAGG	TACGCATGCA	GACTTGTTTG	4620
CCAACAATGC	CGTTTACCGT	GAAATCTATG	AAACACAGAA	ATGAAAGACA	AACTATAAGA	4680
AAAGTCAATA	GTTTTATCTA	AACTATTTCT	TATTTCAATT	TGATGATTTG	GCGATGATTT	4740
TAGAGCACGG	CAAAAAGCCC	TTGAAAAAGT	CCATTTTTTC	AAAGGTAATC	CTGTGTTAAT	4800
TTCAGAAATT	ACATCACTTT	TTGTTTCGTCA	AATGGCAGCT	CTTTTTTTAG	GATATAAAAC	4860
AGGGTTCGGA	TAAGTTTTTT	TGCAAGGTGG	ATGATGGCTA	CATTGTAATG	TTTTCCCTGT	4920
TCTAATTTAG	TCTTAAGATA	GGCCTTAAAA	GCAGGCGAAA	AGCGAGGGCA	TGCTTTGGCA	4980
GCTTGATATGA	GTACCTACCG	CAGATGAGGG	GAAGTCCGTT	TGACCATTTCT	TCCTGCTAAA	5040
TCAATCTGAT	CTGACTGATA	AATAGAAGAA	TCCAGTCCAG	CGAAAGCTTG	TAATTGAGCA	5100
GGATTATCAA	AGGCATGAAT	ATTTCTGAATC	TCAGCTAAAA	TGACCGCCCC	TAAACGATCC	5160
CCAATCCCAG	TAACCGTCGT	GATGACCGAG	TTGAACTCAG	CCATCAAGTC	ATTGACACAT	5220
GTTTCCGCCT	TGTCAATGAG	CCTCTTGTA	TGTTTGATGT	TTTCATTACA	CGAGATAAAA	5280
CGTCTATGCG	TTATCAAAC	CATTACCAAT	TAAAACAAAA	AGCTGTGGTT	AGATCCTTTC	5340
GGAAATTGTC	AAGCGATTGG	AGGAAATGAA	CTAATCCACA	GCGGCTTATT	CCAAGTATAC	5400
CACTTGGGCT	TTGGCAGTAG	CTAACTGCGC	TAAATATAAT	ATAAGGAGGA	GTAAAATGAA	5460
GACAGTTCAA	TTTTTTTGGC	ATTATTTTAA	GGTCTACAAG	TTCTCATTTG	TAGTTGTCAT	5520
CCTGATGATT	GTTCTGGCGA	CTTTTGCCCA	AGCCCTCTTT	CCAGTCTTTT	CTGGACAAGC	5580
GGTGACGCAG	CTAGCCAATT	TAGTTCAAGC	TTATCAAAAT	GGCAATCCAG	AACTTGTATG	5640

536

GCAAAGCCTA TCAGGAATCA TGGTCAATCT TGGCCTGCTG GTTTTGGTTC TATTTATCTC	5700
TAGTGTAATA TACATGTGTC TCATGACGCG CGTGATTGCA GAATCGACCA ACGAGATGCG	5760
CAAAGGCCTC TTTGGTAAGC TTGCTCAGTT GACGGTTTCT TTCTTTGACC GTCGACAAGA	5820
TGGCGATATC CTGTCTCATT TTACCAGTGA TTTGGATAAT ATCCTCCAAG CCTTTAACGA	5880
AAGCTTGATT CAGGTCATGA GCAATATTGT TTTATACATT GGTCTGATTC TTGTCATGTT	5940
TTGAGAAAT GTGACGCTGG CTCTCATCAC CATTGCCAGC ACCCCATTGG CTTTCCTTAT	6000
GCTGATTTTC ATCGTGAAAA TGGCACGCAA ATACACCAAC CTCCAGCAGA AAGAGGTAGG	6060
GAAGCTCAAC GCCTATATGG ATGAGAGCAT CTCAGGCCAA AAAGCCGTGA TTGTGCAAGG	6120
AATTCAAGAG GATATGATGG CAGGATTTCT TGAACAAAAT GAGCGCGTGC GCAAGGCAAC	6180
CTTTAAAGGA AGAATGTTCT CAGGAATTCT TTTCCCTGTC ATGAATGGGA TGAGCCTGAT	6240
TAATACAGCC ATCGTCATCT TTGCTGGTTC GGCTGTACTT TTGAATGATA AGTCTATTGA	6300
AACAAGTACA GCCCTAGGTT TGATTGTTAT GTTTGCACAA TTTTCACAGC AGTACTACCA	6360
GCCTATTATC CAAGTTGCAG CGAGTTGGGG AAGCCTTCAG TTGGCCTTTA CTGGAGCTGA	6420
ACGAATTCAG GAAATGTTTG ATGCAGAGGA GGAAATCCGA CCTGAAAAGG CTCCAACCTT	6480
CACTAAGTTG CAAGAAAGTG TTGAAATCAG TCATATCGTT TTTTCATACT TGCCTGATAA	6540
ACCTATTTTG AAAGATGTCA GCATTTCTGC CCCTAAAGGC CAGATGACAG CAGTTGTTGG	6600
GCCGACAGGT TCAGGAAAAA CGACTATTAT GAACCTCATC AATCGCTTTT ATGATGTTGA	6660
TGCTGGTGGT ATTTATTTTG ATGGTAAAGA CATTCGTGGC TATGACTTAG ATAGTCTTAG	6720
AAGCAAGGTG GGAATTGTAT TGCAAGATTC GGTCTTGTTT AGCGGAACGA TTAGAGACAA	6780
TATCCGATTT GGTGTGCCAG ATGCTAGTCA GGAAATGGTT GAGGTAGCAG CAAAAGCAAC	6840
CCACATTCAC GACTATATCG AAAGTTTGCC TGATAAGTAC GATACTCTTA TTGATGATGA	6900
CCAGAGCATC TTTTCAACAG GGCAGAAGCA ATTGATTTCA ATCGCTCGAA CCCTGATGAC	6960
AGATCCAGAA GTTCTCATTC TCGATGAAGC AACTTCAAAC GTAGATACGG TGACAGAAAG	7020
CAAGATTCAG CATGCCATGG AGGTGGTTGT AGCAGGTAGA ACTAGTTTCG TCATTGCCCA	7080
CCGCTTGAAA ACCATTCTCA ATGCAGATCA GATTATTGTC CTTAAAGATG GAGAAGTCAT	7140
TGAACGTGGT AACCACCATG AACTTTTGAA GCTAGGTGGC TTTTATTCAG AACTCTATCA	7200
CAATCAATTT GTTTTCGAAT AAGAAAGAAG TTGTCCTATG TGGGCAGCTT TTTCTTGTC	7260
ATAAAAAATG TTTATCACAG CCTTAAAAAA AACATATTAG ACGAAAGTCA TTTTGAGTGA	7320
TATGATAGGA CTATCGTTAG CATTCGAAAG GAGAGGCATC ATGGCTAGAA CGGTTGTAGG	7380
AGTTGCTGCA AATCTATGTC CCGTAGACGC AGAAGGCAAA ATCATTCATT CATCTGTATC	7440

537

TTGTAGATTG	GCAGAGATCA	TTCGTCAAGT	CGGTGGTCTC	CCTTTAGTCA	TTCCTGTTGG	7500
TGATGAGTCA	GTTGTACGTG	ATTATGTGGA	AATGATTGAC	AAACTCATTT	TGACAGGAGG	7560
CCAAAATGTT	CATCCTCAGT	TTTATGGAGA	GAAAAAGACC	GTCGAGAGCG	ATGATTACAA	7620
TCTGGTCCGT	GACGAATTTG	AATTGGCACT	CTTGAAGGAA	GCGCTTCGTC	AGAATAAACC	7680
AATTATGGCA	ATCTGTCGCG	GTGTCCAAC	TGTCAATGTT	GCCTTTGGTG	GAACCCTCAA	7740
TCAAGAAATC	GAAGGTCAGG					7760

(2) INFORMATION FOR SEQ ID NO: 64:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2723 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 64:

GAGGTTTAA	TTCACCTACC	TCTsCCGTAT	CTTTATTTAA	AATGAATTCT	TTTACGGTTG	60
TATTTCTTGC	AAAATCTTTT	ACAACAATCT	TAATGTTTAG	TGTCTTGTCT	ATTATTTGTT	120
TAATATCATT	AAATGATGTA	TATTTCTTTC	CATTTATATA	AATATGTTGT	TCTTGAATCT	180
CACCATCGAA	TCCATTATTT	CTTTTATCAT	TGATGTTAAA	GACTACAGAT	TTTCCATCAG	240
CATATTCGAT	ACTAGTATTT	CCCTTAGGAT	CAATGTTTAC	TTCGGGTTTA	ACATTATCAT	300
ATAAAACTG	ATAGTGGACT	CCAAGTCTT	TAGCATTCAA	ATCGCTATAG	CCAGTTTGAA	360
GATAAACATT	TCCATCCATA	TCTGTTACCT	TATCTGGAAA	TCCGTTTGCT	TTATAGTCTT	420
TCATTCCCCA	GTCCATGATG	TCACCGTCTT	TAACATTCAG	CTTAATATTA	AAATCTCTAG	480
TGTTATCAAT	GTGTAAATCT	CCGTAGATTA	AATAATTATC	TACAACCGAT	TCATTAATCT	540
TCAATTCCCA	GTAAAACCA	CCCTTATCAG	AAATCTTACC	TCTTAAATAA	AATTCTGGAT	600
TTCGTACATA	AATTTTATTA	GATTTAGATG	GATTAAAGTA	GTTCTTATCC	ATTGAAAGGT	660
TTACTGGTTT	GGTATCAATA	AATAACATGG	AGCCATCTTC	TTTTATAGCT	TCTACATTGA	720
ACTTATCCTC	TCCAGTGTAT	TCTTTATCAT	CCTTACCAA	TAATACAAGT	TTAGAAGAAT	780
CTGTCACAAG	ATTTCCGTCT	TTATCGATAG	CTTCCCCTTT	ATCGTTCATT	TTAAATGTAA	840
ACACTTGATA	CCTTATAATG	TTAAAGCCGT	CCAAAGCCGA	CATTAATACA	GATTGGGTAC	900
TTCTTCCATC	TTCAACATTT	CTACTATCAG	CATAAATTGT	TGTTTCTGAA	AGGGCTCTTA	960
GATTAGGATT	GGCCTTTTGT	ATTTTTGCTA	TATCTTCCTT	GCTATAGACT	CCATTCCTT	1020

538

CTAACATATC	CGTTTTTCCA	GGATTATAGG	TAGTCACTTT	TAGTGCATAG	CCTTTTCTTA	1080
GAATGATATT	ATCCTTTAAC	AGATATTGTT	GTTTTTCTGA	ATCAGAATAG	ATTTTACCAG	1140
ATTCATTTT	AGTTAAATTG	TCTGGTTTGT	TTTTTGAAAG	ATCTCCTTCC	CCTAATTCTA	1200
TGACATTCCC	ATAACTTGAT	ACATAGGGAT	ATTCTGATTT	AGTTTCCTTA	ATTTTTTCAG	1260
GCATTCTAAT	TTTAATTTCA	GCTTTTTTCT	GATCATTATC	TTTAACAAAT	AATCTCATAT	1320
CTCCTGCAAA	AGCTAATCCA	TCCACAATAT	CATTAATATT	AGCGTATAGA	TCAAATGTCA	1380
TCGTTTTTGA	GTGGAAATCA	TACTTGGTCG	CTTTGATTTT	TATAGATTTA	TAGTTATTCC	1440
CATAATATAC	CTTGGCATTT	TTAGAAACAT	TACTTATCTT	TCCAAGAATT	TCAAAGTGTC	1500
CATCTTTAGA	CGGACTTAGA	ACACCATAAA	TTTTTGATTT	GATTTTCGTCA	AGTTTCTCAG	1560
TTTCATATTC	TAGATCAGTC	CCATCATCGT	AGGCTATTAT	ATTTCTTTTA	TCATCGTATT	1620
TATAATCGTA	TCCTCCATT	CTCTTACCAG	TTTCACTTGT	AAAATCATCA	ACTTCTCTAA	1680
ATTTCTTTTT	AATGAGTTTC	TTTAAGTCTT	TATTTTCAAA	GTCTCTAATT	GTTGAAATAT	1740
TTCTATCAAT	AGTAAACTA	GATTTTTCTT	TAATAGACTC	TTCATTTTCT	TGATGATGAT	1800
GTTCTACCCC	AGTTGTATCT	TTTTTTAGAC	TACCCTCTTT	TCCATTTCTT	AAATTTTTAA	1860
ATTTAGATTC	TGCAATCTCG	CCAAGCTTTT	GATATTTAGA	TGAATCTTGA	TCAGGATCTA	1920
CTAGATAATA	GGAAATCATC	CCCTTTTCAT	CAGCCTGATT	AGCAAATTTA	ATTCTATGAA	1980
TCTTTGTGAA	ATTGCTAGAA	CCATCTAATG	CAATGACTTC	AATGATTTTT	CCCCTTAAAT	2040
CTCCCGCACC	TTTAATTTCA	TAAATGGTAT	TTCCGTCTTT	ATCAAGTTTT	CTATTTCTTC	2100
CTTGACCCTC	ACCTGCGTAA	GTTACTTCAA	GATTTTTTTT	AACCTCTCCA	TCTTCATTAA	2160
CAAGAGCGGC	GCCAGCATAC	CAAACCTCGT	TCGCAATCTC	GTCAAATTTT	TCAGGATGTT	2220
CTTTTTGATC	TCTCGCAAAT	AGCGTTTCAT	TCTTATACTG	ATCTTTTACC	TTATGATAAG	2280
TATCCTTTGT	AATCAACTTA	ATTTTTTCAG	GATTTGAAAA	ATCAACCGAA	ACAATCTTAG	2340
GGGCGGTGTT	ATCAATTTTT	ACAGGAATAT	AGGAAACCTG	CCATGGGTAA	TCTTTAGTTA	2400
ATCTATATTT	AAATTTATAG	AAATATTGAC	CTTCCGCAAT	CGGTTCAAAT	TGACCTCTTA	2460
TCTTAGTAGC	AGGATCTTGA	TTATCCTTAC	TTTCTGGTGC	ATTTTCTTCT	CTACCTCTAG	2520
GATTATAGAT	GAGTCCATCC	CACTTCAAGT	CACCCCAAAC	TTTTAGTTTA	GATGATTTGA	2580
TTCCCTTTGC	ATCATTGCTT	TTAGAATTTA	AAATTCCTCT	AATAAAGTGT	TCTCTCGAAA	2640
TGACTTTTAA	GTCTCTTTGA	TTTTCTCCCT	CTTTATTTGT	ATTTACTATT	GAAATCAATC	2700
CTTCTTCTGC	ACTTCTTAAT	ACA				2723

(2) INFORMATION FOR SEQ ID NO: 65:

539

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11831 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 65:

AAAAAAGTGG GAATGACTCA AATCTTCACT GAAGCTGGCG AATTGATCCC TGTAACAGTT	60
ATTGAAGCAA CTCCAAACGT TGTTCTTCAA GTTAAACTG TTGAAACAGA CGGATACAAC	120
GCTATCCAAG TTGGTTTCGA TGACAAACGC GAAGTATTGA GCAACAAACC TGCTAAAGGA	180
CATGTAGCGA AAGCTAACAC GGCTCCTAAG CGCTTCATTC GTGAATTCAA AAACGTTGAA	240
GGCTTGGAAG TTGGTGCTGA AATTACAGTT GAAACATTCG CAGCTGGAGA CGTTGTTGAC	300
GTAACGGGTA CTTCTAAAGG TAAAGGTTTC CAAGGTGTTA TCAAACGCCA CGGACAATCA	360
CGTGGACCAA TGGCTCACGG TTCTCGTTAC CACCGTCGTC CAGGTTCTAT GGGGCCTGTT	420
GCACCTAACC GCGTATTCAA AGGTAAAAAC CTTGCAGGAC GTATGGGTGG CGACCGCGTA	480
ACAATTCAAA ACCTTGAAGT TGTACAAGTT GTTCCAGAAA AGAACGTTAT CCTTATCAAA	540
GGTAACGTAC CAGGTGCTAA GAAATCTCTT ATCACTATCA AATCAGCAGT TAAAGCTGGT	600
AAATAATAAA GAAAGGGGAA ATCAGTCACA ATGGCAAACG TAACATTATT TGACCAAAC	660
GGTAAAGAAG CTGGCCAAGT TGTTCTTAGC GATGCAGTAT TTGGTATCGA ACCAAATGAA	720
TCAGTTGTGT TTGATGTAAT CATCAGCCAA CGCGCAAGCC TTCGTCAAGG AACACACGCT	780
GTTAAAAACC GCTCTGCAGT ATCAGGTGGT GGACGCAAAC CATGGCGTCA AAAAGGAACT	840
GGACGTGCTC GTCAAGGTTT TATCCGCTCA CCACAATGGC GTGGTGGTGG TGTTGTCTTC	900
GGACCAACTC CACGTTCTAT CGGCTACAAA CTTCCACAAA AAGTTCGTCT CCTAGCTCTT	960
AAATCAGTTT ACTCTGAAAA AGTTGCTGAA AACAAATTCG TAGCTGTAGA CGCTCTTTCA	1020
TTTACAGCTC CAAAAACTGC TGAATTTGCA AAAGTTCTTG CAGCATTGAG CATCGATTCT	1080
AAAGTTCTTG TTATCCTTGA AGAAGGAAAT GAATTCGCAG CTCTTTCAGC TCGTAACCTT	1140
CCAAACGTGA AAGTTGCAAC TGCTACAACT GCAAGTGTTT TTGACATCGC AAATAGCGAC	1200
AAACTTCTTG TCACACAAGC AGCTATCTCT AAAATCGAGG AGGTTCCTTG ATAATGAATT	1260
TGTATGATGT TATCAAAAAA CCTGTCATCA CTGAAAGCTC AATGGCTCAA CTTGAAGCAG	1320
GAAAATATGT ATTTGAAGTT GACACTCGTG CACACAACT TTTGATCAAG CAAGCTGTTG	1380
AAGCTGCTTT CGAAGGTGTT AAAGTTGCCA ATGTTAACAC AATCAACGTA AAACCAAAG	1440

540

CTAAACGTGT	TGGACGTTAC	ACTGGTTTTA	CTAACAAAAC	TAAAAAAGCT	ATCATCACAC	1500
TTACAGCTGA	TTCTAAAGCA	ATCGAGTTGT	TTGCTGCTGA	AGCTGAATAA	TCTAAGGAGG	1560
AAATATCGTG	GGAATTCGTG	TTTATAAACC	AACAACAAAC	GGTCGCCGTA	ATATGACTTC	1620
TTTGGATTTC	GCTGAAATCA	CAACAAGCAC	TCCTGAAAAA	TCATTGCTTG	TTGCATTGAA	1680
GAGCAAGGCT	GGTCGTAACA	ACAACGGTCG	TATCACAGTT	CGTCACCAAG	GTGGTGGACA	1740
CAAACGTTTC	TACCGTTTGG	TTGACTTCAA	ACGTAATAAA	GACAACGTTG	AAGCAGTTGT	1800
TAAAACAATC	GAGTACGATC	CAAACCGTTC	TGCAAACATC	GCTCTTGTA	ACTACACTGA	1860
CGGTGTGAAA	GCATACATCA	TCGCTCCAAA	AGGTCTTGAA	GTAGGTCAAC	GTATCGTTTC	1920
AGGTCCAGAA	GCAGATATCA	AAGTCGGAAA	CGCTCTTCCA	CTTGCTAACA	TCCCAGTTGG	1980
TACTTTGATT	CACAACATCG	AGTTGAAACC	AGGTCTGTTG	GGTGAATTGG	TACGTGCTGC	2040
TGGTGCATCT	GCTCAAGTAT	TGGGTCTCTG	AGGTAAATAT	GTTCTTGTTT	GTCTTCAATC	2100
AGGTGAAGTT	CGTATGATTC	TTGGAACCTG	CCGTGCTACA	GTTGGTGTGG	TCGGAAACGA	2160
ACAACATGGA	CTTGTAACC	TTGGTAAAGC	AGGACGTAGC	CGTTGGAAA	GTATCCGCCC	2220
AACAGTTCGT	GGTCTGTAA	TGAACCCTAA	CGATCACCCA	CACGGTGGTG	GTGAAGGTAA	2280
AGCACCAGTT	GGTCGTAAAG	CACCATCTAC	TCCATGGGGC	AAACCTGCTC	TTGGTCTTAA	2340
AACTCGTAAC	AAGAAAGCGA	AATCTGACAA	ACTTATCGTT	CGTCGTCGCA	ACGAGAAATA	2400
ATATTAAACT	AGTCGCTTAA	GCAACTAGTA	AATCCGCCAG	CTCGGTAGCG	CTCCATAGGA	2460
GTGCAAGCCG	CTGTGGTACA	ACATTTAAAG	GAGAAAATAT	AAAAATGGGA	CGCAGTCTTA	2520
AAAAAGGACC	TTTCGTCGAT	GAGCATTTGA	TGAAAAAAGT	TGAAGCTCAA	GCTAACGACG	2580
AAAAGAAAAA	AGTTATTAAA	ACTTGGTCAC	GTCGTTCAAC	GATCTTCCCA	AGTTTCATTG	2640
GTTACACTAT	TGCAGTTTAT	GACGGACGTA	AACACGTACC	TGTTTACATC	CAAGAAGACA	2700
TGGTAGGCCA	CAAACCTGGT	GAATTTGCAC	CAACTCGTAC	TTACAAAGGT	CACGCTGCAG	2760
ACGACAAGAA	AACACGTAGA	AAATAAGGAG	AACATAAATG	GCAGAAATTA	CTTCAGCTAA	2820
AGCAATGGCT	CGTACAGTAC	GTGTTTCACC	TCGTAAATCA	CGTCTTGTTT	TTGATAACAT	2880
CCGTGGTAAA	AGCGTAGCCG	ATGCAATCGC	AATCTTGACA	TTCACTCCAA	ACAAAGCTGC	2940
TGAAATCATC	TTGAAAGTTT	TGAACTCAGC	TGTAGCTAAC	GCTGAAAACA	ACTTTGGTTT	3000
GGATAAAGCT	AACTTGGTAG	TATCTGAAGC	ATTCGCAAAC	GAAGGACCAA	CTATGAAACG	3060
TTTCCGTCCA	CGTGCGAAA	GTTCAGCTTC	ACCAATCAAC	AAACGTACAG	CTCACATCAC	3120
TGTAGCTGTT	GCAGAAAAAT	AAGGAGGTAA	AATCGTGGGT	CAAAAAGTAC	ATCCAATTGG	3180
TATGCGTGTC	GGCATCATCC	GTGATTGGGA	TGCCAAATGG	TATGCTGAAA	AAGAATACGC	3240

541

GGATTACCTT	CATGAAGATC	TTGCAATCCG	TAAATTCGTT	CAAAAAGAAC	TTGCTGACGC	3300
AGCAGTTTCA	ACTATTGAAA	TCGAACGCGC	AGTAAACAAA	GTTAACGTTT	CACTTCACAC	3360
TGCTAAACCA	GGTATGGTTA	TCGGTAAAGG	TGGTGCTAAC	GTTGATGCaC	TCCGTGCAAA	3420
ACTTAACAAA	TTGACTGGAA	AACAAGTACA	CATCAACATC	ATCGAAATCA	AACAACCTGA	3480
TTTGGATGCT	CACCTTGTAG	GTGAAGGAAT	TGCTCGTCAA	TTGGAGCAAC	GTGTTGCTTT	3540
CCGTCGTGCA	CAAAAACAAG	CAATCCAACG	TGCAATGCGT	GCTGGAGCTA	AAGGAATCAA	3600
AACTCAAGTA	TCAGGTCGTT	TGAACGGTGC	AGATATCGCC	CGTGCTGAAG	GATACTCTGA	3660
AGGAAC TGTT	CCGCTTCACA	CACTTCGTGC	AGATATCGAT	TACGCTTGGG	AAGAAGCAGA	3720
TACTACATAC	GGTAAACTTG	GTGTTAAAGT	ATGGATCTAC	CGTGGTGAAG	TTCTTCCAGC	3780
TCGTAAAAAC	ACTAAAGGAG	GTAAATAACC	AATGTTAGTA	CCTAAACGTG	TTAAACACCG	3840
TCGTGAGTTC	CGTGGA AAAA	TGCGCGGTGA	AGCAAAAGGT	GGAAAAGAAG	TAGCATTCGG	3900
TGAATACGGT	CTTCAAGCTA	CAACTAGCCA	CTGGATCACT	AACCGCCAAA	TCGAAGCTGC	3960
TCGTATCGCC	ATGACTCGTT	ACATGAAACG	TGGTGGTAAA	GTTTGGATTA	AAATCTTCCC	4020
ACACAAATCA	TACACTGCTA	AAGCTATCGG	TGTGCGTATG	GGATCTGGTA	AAGGGGCACC	4080
TGAAGGTTGG	GTAGCACCAG	TTAAACGTGG	TAAAGTGATG	TTCGAAATCG	CTGGTGTATC	4140
TGAAGAGATT	GCACGTGAAG	CGCTTCGACT	TGCTAGCCAC	AAATTGCCAG	TTAAATGTAA	4200
ATTCGTAAAA	CGTGAAGCAG	AATAAGGAGA	AGGCATGAAA	CTTAATGAAG	TAAAAGAATT	4260
TGTTAAAGAA	CTTCGTGGTC	TTTCTCAAGA	AGAACTCGCG	AAGCGCGAAA	ACGAATTGAA	4320
AAAAGAATTG	TTTGAAC TTC	GTTTCCAAGC	TGCTACTGGT	CAATTGGAAC	AAACAGCTCG	4380
CTTGAAAGAA	GTTAAAAAAC	AAATCGCTCG	CATCAAAACA	GTTCAATCTG	AAGCGAAATA	4440
ATAGACTAGG	GAAGGAGAAA	TTTCAATGGA	ACGCAATAAT	CGTAAAGTTC	TTGTTGGACG	4500
TGTTGTATCT	GACAAAATGG	ACAAGACAAT	CACAGTTGTA	GTTGAAACAA	AACGTAACCA	4560
CCCAGTCTAT	GGTAAACGTA	TTAACTACTC	TAAAAAATAC	AAAGCTCATG	ATGAAAACAA	4620
TGTTGCCAAA	GAAGGCGATA	TCGTACGTAT	CATGGAAACT	CGCCCGCTTT	CAGCTACAAA	4680
ACGTTTCCGT	CTTG TAGAAG	TTGTTGAAGA	AGCGGTCATC	ATCTAATCAA	ACCTGAAAGG	4740
AGAAAACTGA	AATGATTCAA	ACAGAAACTC	GTTTGAAAGT	CGCAGACAAC	AGCGGTGCTC	4800
GCGAAATCTT	GACTATCAAA	GTTCTTGGTG	GTTCAGGACG	TAAATTTGCA	AACATCGGTG	4860
ATGTTATCGT	GGCATCTGTA	AAACAAGCTA	CTCCTGGTGG	TGCGGTTAAA	AAAGGTGACG	4920
TTGTTAAAGC	AGTTATCGTT	CGTACTAAAT	CAGGTGCTCG	TCGTGCTGAT	GGTTCATACA	4980

542

TCAAATTTGA	CGAAAACGCA	GCAGTTATCA	TCCGTGAAGA	CAAAACTCCT	CGCGGAACAC	5040
GTATCTTTGG	CCCAGTTGCA	CGTGAATTGC	GTGAAGGTGG	CTTCATGAAG	ATCGTGTCAC	5100
TTGCTCCAGA	AGTACTTTAA	TTTTTAGGAA	CAAAC TAGTC	CCCTAGCTTC	AAGCTAGGGT	5160
GCCCTTATGG	GCGTAAGAAA	AATCAAGGAG	AAACCTAATG	TTTGTA AAAA	AAGGCGACAA	5220
AGTTCGCGTA	ATCGCTGGTA	AAGATAAGGG	AACAGAAGCT	GTTGTCCTTA	CTGCCCTTCC	5280
AAAAGTAAAC	AAAGTTATCG	TTGAAGGTGT	TAACATTGTT	AAGAAACACC	AACGTCCAAC	5340
TAACGAGCTT	CCTCAAGGTG	GTATCATCGA	GAAAGAAGCA	GCTATCCACG	TATCAAACGT	5400
TCAAGTTTTG	GACAAAAATG	GTGTAGCTGG	TCGTGTTGGA	TACAAATTTG	TAGACGGTAA	5460
AAAAGTTCGC	TACAACAAAA	AATCAGGCGA	AGTGCTTGAT	TAATCACGAA	GGAAAGGAGA	5520
AGTATAATGG	CAAATCGTTT	AAAAGAAAAA	TATCTTAATG	AAGTAGTTCC	TGCTTTGACA	5580
GAACAATTCA	ACTACTCATC	AGTGATGGCT	GTGCCTAAAG	TAGATAAGAT	TGTTTTGAAC	5640
ATGGGTGTTG	GTGAAGCTGT	ATCAAACGCT	AAAAGCCTTG	AAAAAGCTGC	TGAAGAATTG	5700
GCACTTATCT	CAGGTCAAAA	ACCACTTATC	ACTAAAGCTA	AAAAATCAAT	CGCCGGCTTC	5760
CGTCTTCGTG	AAGGTGTTGC	GATCGGTGCA	AAAGTTACCC	TTCGTGGTGA	ACGTATGTAC	5820
GAATTCTTGG	ATAAATTGGT	ATCAGTTTCA	CTTCCACGTG	TACGTGACTT	CCACGGTGTC	5880
CCAACAAAAT	CATTTGATGG	ACGCGGGAAC	TACACACTTG	GTGTGAAAGA	ACAATTAATC	5940
TTCCCAGAAA	TCAACTTCGA	TGACGTTGAC	AAAAC TCGTG	GTCTTGACAT	CGTTATCGTA	6000
ACAAC TGCTA	ACACTGACGA	AGAGTCACGT	GCATTGCTTA	CAGGCCTTGG	AATGCCTTTTT	6060
GCAAAATAAT	ATAGGAGGTA	AATCTAATGG	CTAAAAAATC	AATGGTAGCT	AGAGAGGCTA	6120
AACGCCAAAA	AATTGTTGAC	CGTTATGCTG	AAAAACGTGC	TGCATTAAAG	GCGGCAGGGG	6180
ACTACGAAGG	TTTATCTAAA	TTACCTCGCA	ACGCCTCACC	GACTCGTTTA	CATAATCGTT	6240
GTAGGGTTAC	GGGGCGCCCA	CATTCAGTTT	ACCGCAAATT	TGGTCTGAGT	CGTATCGCTT	6300
TTCGCGAACT	TGCGCATAAA	GGTCAAATTC	CTGGTGTAAC	AAAAGCATCT	TGGTAATTTA	6360
AGATATCAAG	AGCGTCAAAA	CTCCAAGTAA	AAATAGGAAA	CTTGACGAAG	AAACTAAAGT	6420
TTCTAGGAAA	GTTTATCTTT	TTCACACAGA	GTTTAGCCCG	GGTTCAATTG	GGCTTGCCAA	6480
TTTGAACACG	AGCTACAGCT	TTGGCAAAAA	AGACCAATTT	GCTTTGGAGC	ATTGCTTCTG	6540
CATTAAATTG	TCTATTTTTG	CTCGTGCTGT	TACGCTCTTT	GTATCATGTA	TTAACTAGCA	6600
AGTGCAACTT	GCAAACTACT	AGTAAGAGGA	GAAAAACAAA	ATGGTTATGA	CTGACCCAAT	6660
CGCAGACTTC	CTAACTCGTA	TTCGTAATGC	TAACCAAGCT	AAACACGAAG	TACTTGAAGT	6720
ACCTGCATCA	AACATCAAAA	AAGGGATTGC	TGAAATCCTT	AAACGCGAAG	GTTTTGTAAA	6780

543

AAACGTTGAA ATCATTGAAG ATGACAAACA AGGCGTCATC CGTGTATTTT TTAATACGG	6840
ACCAAATGGT GAGAAAGTTA TCACTAACTT GAAACGTGTT TCTAAACCAG GACTTCGTGT	6900
CTACAAAAAA CGTGAAGACC TTCCAAAAGT TCTTAACGGA CTTGGAATTG CCATCCTTTC	6960
AACTTCTGAA GGTTCGCTTA CTGATAAAGA AGCACGCCAA AAGAATGTTG GTGGTGAGGT	7020
TATCGCTTAC GTTTGGTAAA ATCAAGATAC AAAGCTCGTA AAGAACAAAG CAAAATTAGG	7080
AAGTTGGAGA AGTTTGTTTA CAAACAAGCC AACTTATCTA TTTTGACACAG TTCTTAGAGC	7140
GTGTTCAAGT CAGCTCTTGA ACTAAATAAG TATCTGAACC CCGTGAAAAC TGGCCGTTCT	7200
GGCCTGACAA TTTAACAGGA GAAAATAAAC ATGTCACGTA TTGGTAATAA AGTTATCGTG	7260
TTGCCTGCTG GTGTTGAACT CGCTAACAAT GACAACGTTG TAACTGTAAA AGGATCTAAA	7320
GGAGAACTTA CTCGTGAGTT CTCAAAAGAT ATTGAAATCC GTGTGGAAGG TACTGAAATA	7380
ACTCTTCACC GTCCAAACGA TTCAAAAGAA ATGAAAATA TCCACGGAAC TACTCGTGCC	7440
CTTTTGAACA ACATGGTTGT TGGTGTATCA GAAGGATTCA AGAAAGAACT TGAAATGCGT	7500
GGGGTTGGTT ACCGTGCACA GCTTCAAGGA TCTAAACTTG TTTTGGCTGT TGGTAAATCT	7560
CATCCAGACG AAGTTGAAGC TCCAGAAGGA ATTACTTTTG AACTTCCAAA CCCAACAACA	7620
ATCGTTGTTA GCGGAATTTT AAAAGAAGTA GTTGGTCAAA CAGCTGCTTA CGTACGTAGC	7680
CTTCGTTTAC CAGAACCATA TAAAGGTAAA GGTATCCGTT ACGTTGGTGA ATTCGTTTCG	7740
CGTAAAGAAG GTAAAACAGG TAAATAATGT TGAGTGGTTG ATCATCAACC ACCAACCTAT	7800
TTTCCAACCT TGTGCATAGC ACACGATTTA AAATAAAGA GGTGAAAAC GTGATTTCAA	7860
AACCAGATAA AAACAACTC CGCCAAAAAC GCCACCGTCG CGTTCGCGGA AAATCTCTG	7920
GAACTGCTGA TCGCCACGTT TTGAACGTAT TCCGTTCTAA TACAGGCATC TACGCTCAAG	7980
TGATTGATGA CGTAGCGGGT GTAACGCTCG CAAGTGCTTC AACTCTTGAT AAAGAAGTTT	8040
CAAAAGGAAC TAAAACCTG CAAGCCGTTG CTGTCGGTAA ACTCGTTGCA GAACGTGCAA	8100
ACGCTAAAGG TATTTTCAGAA GTGGTGTTTC ACCGCGGTGG ATATCTATAT CACGGACGTG	8160
TGAAAGCTTT GGCTGATGCA GCTCGTGAAA ACGGATTGAA ATTCTAATAG GAGGACACTA	8220
GAAAATGGCA TTTAAAGACA ATGCAGTTGA ATTAGAAGAA CGCGTAGTTG CTGTCAACCG	8280
TGTTACAAAA GTTGTTAAAG GTGGACGTCG TCTTCGTTTC GCAGCTCTTG TTGTTGTTGG	8340
TGACCACAAT GGTCGCGTAG GATTTGGTAC TGGTAAAGCT CAAGAAGTTC CAGAAGCAAT	8400
CCGTAAAGCA GTAGATGATG CTAAGAAAAA CTTGATCGAA GTTCCTATGG TTGGAACAAC	8460
AATCCCACAC GAAGTTCTTT CAGAATTCGG TGGAGCTAAA GTATTGTTGA AACCTGCTGT	8520

544						
AGAAGGTTCT	GGAGTTGCCG	CTGGTGGTGC	AGTTCGTGCC	GTTGTGGAAT	TGGCAGGTGT	8580
GGCAGATATT	ACATCTAAAT	CACTTGGTTC	TAACACTCCA	ATCAACATTG	TTCGTGCAAC	8640
TGTTGAAGGT	TTGAAACAAT	TGAAACGCGC	TGAAGAAATT	GCTGCCCTTC	GTGGTATTTT	8700
AGTTTCTGAT	TTGGCATAAG	AAAGGGGATA	AAATGGCTCA	AATTAAAATT	ACTTTGACTA	8760
AGTCTCCAAT	CGGACGCATT	CCATCACAAC	GTAAAACTGT	TGTAGCACTT	GGACTTGGCA	8820
AATTGAACAG	CTCTGTTATT	AAAGAAGATA	ACGCTGCTAT	CCGTGGTATG	ATCACAGCAG	8880
TATCTCACTT	AGTAACAGTT	GAAGAAGTAA	ACTAATGAaG	TTTTAGGGGA	TGTGCACTGT	8940
ACCATCCCCCT	AAAAC TAGAT	ATAGTCATCT	ATGATGACAT	CGTATAGGCG	AGTTGATGGG	9000
GGAGACAACC	TTTTCTCCCT	TATCGGCGCT	AGCATTTTAC	AAAAGAGGAG	AAAATAAAAA	9060
TGAAACTTCA	TGAATTGAAA	CCTGCAGAAG	GTTCTCGTAA	AGTACGTAAC	CGCGTTGGTC	9120
GTGGTACTTC	ATCAGGTAAC	GGTAAAACAT	CTGGTCGTGG	TCAAAAAGGT	CAAAAAGCTC	9180
GTAGCGGTGG	CGGAGTTCGC	CTTGGTTTTG	AAGGTGGACA	AACTCCATTG	TTCCGTCGTC	9240
TTCCAAAACG	TGGATTCACT	AACATCAACG	CTAAAGAATA	CGCAATTGTG	AACCTTGACC	9300
AATTGAACGT	CTTTGAAGAT	GGTGCTGAAG	TAAC TCCAGT	TGTTCTTATC	GAAGCAGGAA	9360
TTGTTAAAGC	TGAAAAGTCA	GGTATTAAAA	TTCTTGGTAA	CGGTGAGTTG	ACTAAGAAAT	9420
TGACTGTGAA	AGCAGCTAAA	TTCTCTAAAT	CAGCTGAAGA	AGCTATCACT	GCTAAAGGTG	9480
GTTCAGTAGA	AGTCATCTAA	GAGAGGTGAC	CTATGTTTTT	TAAATTATTA	AGAGAAGCTC	9540
TTAAAGTCAA	GCAGGTTCGA	TCAAAAATTT	TATTTACAAT	TTTTATCGTT	TTGGTCTTTC	9600
GATATCGGAAC	TAGCATTACA	GTTCCCTGGTG	TGAATGCCAA	TAGCTTGAAT	GCTTTAAGTG	9660
GATTATCCTT	CTTAAACATG	TTGAGCTTGG	TGTCGGGGAA	TGCCCTAAAA	AACTTTTCGA	9720
TTTTTGCCCT	AGGAGTTAGT	CCCTATATCA	CCGCTTCTAT	TGTTGTCCAA	CTCTTGCAAA	9780
TGGATATTTT	ACCCAAGTTT	GTAGAGTGGG	GTAAACAAGG	GGAAGTAGGT	CGAAGAAAAT	9840
TGAATCAAGC	TACTCGTTAT	ATTGCTCTAG	TTCTCGCTTT	TGTGCAATCT	ATCGGGATTA	9900
CAGCTGGTTT	TAATACCTTG	GCTGGAGCTC	AATTGATTAA	AACTGCTTTA	ACTCCACAAG	9960
TTTTTCTGAC	GATTGGTATC	ATCTTAACAG	CTGGTAGTAT	GATTGTCACT	TGGTTGGGTG	10020
AGCAAATTAC	AGATAAGGGA	TACGGAAACG	GTGTTTCCAT	GATTATCTTT	GCCGGGATTG	10080
TTTCCTCAAT	TCCAGAGATG	ATTCAGGGCA	TCTATGTGGA	CTACTTTGTG	AACGTCCCAA	10140
GTAGCCGTAT	CACTTCATCT	ATCATTTTTCG	TAATCATTTT	GATTATTACT	GTATTGTTGA	10200
TTATTTACTT	TACAACTTAT	GTTCAACAAG	CAGAATACAA	AATTCCAATC	CAATATACTA	10260
AGGTTGCACA	AGGTGCTCCA	TCTAGCTCTT	ACCTTCCGTT	AAAAGTAAAC	CCTGCTGGAG	10320

545

TTATCCCTGT TATCTTTGCC AGTTCGATTA CTGCAGCCTG CGGCTATTCT TCAGTTTTTG	10380
AGTGCCACAG GTCATGATTG GGCTTGGGTA AGGGTAGCAC AAGAGATGTT GGCAACTACT	10440
TCTCCAAC TG GTATTGCCAT GTATGCTTTG TTGATTATTC TCTTTACATT CTTCTATACG	10500
TTTGTACAGA TTAATCCTGA AAAAGCAGCA GAGAkCCTAC AAAAGAGTGG TGCCTATATC	10560
CATGGAGTTC GTCCTGGTAA AGGTACAGAA GAATATATGT CTAAACTTCT TCGTCGTCCT	10620
GCAACTGTTG GTTCCCTCTT CCTTGGTGTG ATTTCCATTT TACCGATTGC AGCTAAAGAT	10680
GTATTTGGTC TTTCTGATGT TGTTCCTTT GGTGGAACAA GTCTCTTGAT CATTATCTCT	10740
ACAGGTATCG AAGGAATCAA GCAATTGGAA GGTACCTAT TGAAACGTAA GTATGTTGGT	10800
TTCATGGACA GAACAGAATA AAAGTATTTA CTGAATCAGT AAATACTGAG GGAGTGGAGG	10860
TTTAAACTCT GACATTTGTA AGAGTTGGAT CTCCCCCTCT CTATTTTGT TTTAAATCGG	10920
GGTGAAAAGA CTTTTTGCTT CTATTTAAAA ATAAAAATAAG GAGATCAAAT CATGAATCTT	10980
TTGATTATGG GCTTACCTGG TGCAGGTAAG GGAAGTCAAG CAGCAAAAAT CGTAGAACAA	11040
TTCCATGTTG CACATATCTC AACAGGTGAT ATGTTCCGCG CTGCAATGGC AAATCAAAC	11100
GAAATGGGTG TTCTTGCTAA GTCATATATT GACAAGGGTG AATTGGTTCC TGACGAAGTT	11160
ACAAATGGAA TCGTAAAAGA ACGCCTTTCA CAAGATGATA TTAAAGAAAC AGGATTCTTA	11220
TTGGATGGTT ACCCACGTAC AATTGAACAA GCTCATGCCT TGGACAAAAC ATTGGCTGAA	11280
CTTGGCATTG AACTAGAAGG TGTTATCAAT ATTGAAGTGA ACCCTGACAG CCTTTTGAA	11340
CGTTTGAGTG GGCGTATCAT CCACCGCGTA ACTGGAGAAA CTTTCCACAA GGTCTTTAAC	11400
CCACCAGTTG ACTATAAAGA AGAAGATTAC TACCAACGTG AAGATGATAA GCCTGAGACA	11460
GTAAACGTC GTTTGGATGT TAATATTGCT CAAGGAGAAC CAATCATTGC TCACTACCGT	11520
GCCAAAGGTT TGGTTCATGA CATCGAAGGT AATCAAGATA TCAATGATGT CTTCTCAGAT	11580
ATTGAAAAAG TATTGACAAA TTTGAAATAA AGCGTTTTTC AACTTGCAA AAATCCGCTA	11640
CAAATGTTAT ACTGAGATAG TCTGACTTAT AATTGTTGTC TCTGTGTCTA GAGGCATCGA	11700
ATCGAAATTT ATGGAGGTGC TTTTGCGTGG CAAAAGACGA TGTGATTGAA GTTGAAGGCA	11760
AAGTAGTTGA TACAATGCCG AATGCAATGT TTACGGTTGA ACTTGAAAAT GGACATCAGA	11820
TTTTAGCAGG G	11831

(2) INFORMATION FOR SEQ ID NO: 66:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 10726 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double

546

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 66:

CCCGGCATTT GAAAGCTATT CGTGAAGGAT TTATGATGGC AATGCCTTTG ATTTTAGTCG	60
GCTCTTTATT TCTTATTCTA ATCAGTTGGC CTCAAGAGGC TTTTACAAAT TGGCTGAATA	120
GTGTTGGATT GCTAAGTATC TTGACAACTA TGAATCAGTC AACAGTAGCG ATTATCTCCT	180
TGGTCGCTTG TTTCGGTATT GCCTACAGGT TGTCGGAAGG ATATGGTACA GATGGTCCGT	240
CGGCAGGGAT CATAGCCTTA TCCAGTTTTG TATTGATGGC ACCTCGTTTT TCGAGTATGG	300
TTTATGATAA AAATGGGGAG CAGGTCAAGC AGTTATTTGG CGGCGCAATA CCATTTTCTA	360
GCCTGAATGC ATCTTCTTTG TTTATGGCGA TTACTATTGG ATTGGTTACA GCAGAGATTT	420
ATCGTATGTT TATCCAGCGC GGAATTACGA TAAAAATGCC AAGTGGTGTC CCAGATGTAG	480
TAAGTAAATC ATTTTCAGCT CTTTTATCTG GTTTTACTAC TTTTGTTTTG TGGGCTTTGG	540
TCTTAAAAGG TCTTGAAGCG GCAGGAGTTG CAGGAGGTCT CAACGGACTC CTAGGTGCAA	600
TTGTTGGAAC ACCGCTTAAG TTAATTGCAG GAACGCTTCC AGGTATGATT CTATGTGTTA	660
TTGTAAACTC ATTCTTTTGG TTCTGTGGAG TTAATGGGGG ACAAGTTTTA AATGCTTTTG	720
TAGACCCAGT TTGGTTACAA TTTACTACAG AAAACCAAGA AGCTGTGGCT GCAGGACAAA	780
CACTCCAACA CATTATTACA TTACCGTTTA AAGATTTATT TGTATTTATT GGTGGCGGTG	840
GAGCGACTAT TGGTCTTGCG ATTTGTCTCT TCCTATTTAG TAAGAGTCGT GCGAATAAAA	900
CATTAGGTAA GCTAGCTATT ATACCGTCTA TTTTAAATAT CAATACAGCT ATTCTATTTA	960
CGTTTCCAAC AGTTTTAAAT CCGATTATGC TGATTCCGTT TATTGCTACT CCTACAATCA	1020
ATGCCTTGAT TACCTATGTA TCAATGGCTG TAGGATTAGT ACCCTATACA ACAGGTGTAA	1080
TCCTTCCGTG GACAATGCCA CCGATTATAG GAGGCTTCCT TGCAACAGGG GCTAGTTGGC	1140
GAGGAGCTCT ATTACAAGTT GTTTTGATTT TGGTTTCTGT AGCAATTTAT TATCCATTCT	1200
TCAAAATTGC AGATAAACGC AATCTTGAAA AAGAAAAAGC TACTGTTGGA GGGAAATAAG	1260
ATGGTTATCA GAGTATTTGA TCAACAGAAA AATACTTATT CTAGCTTTGC CTTAGAGGAA	1320
TTAAGTTACT ATATGAATCG GGTCTTTAAG ACTAACATAG AGCTTGTCGA GGAGAAGGAA	1380
GCGGATATTT TTGTAGGATT AGTCAATAAA GAGGACAGAA AAGACCATGT TCTTATCTCA	1440
TTAGACAAGG GTAAGGGGAG AATTGAGTCT AATACAATTG TAGGTTTACT TATTGGAATT	1500
TACCGAATGT TTCATGAATT TGGGGTTGTG TATACTAGAC CAGGGCGCAG ACATGACTTT	1560
GTTCCAGAGT TACGATTTGA AGATTTTTTA GATAAACAGC TATCTATAGA TGAAACAGCC	1620

547

AGTTACTATC	ATAGGGGAGT	ATGTATAGAG	GGAGCGGATT	CATTTGAAAA	TATACTAGAT	1680
TTCATTGATT	GGCTACCTAA	GATTGGGATG	AACAGTTTTT	TCATCCAGTT	TGAAAATCCT	1740
TACTCTTTTT	TGAAACGTTG	GTATGAACAT	GAATTTAATC	CATATCTAAA	TAAAGAACAA	1800
TTTTCAAATG	AATTAGTACA	AGAATTGAGT	GATAGGTTGG	ATAAAGAATT	GCAAAAAAGA	1860
GGTCTTATTC	ATCATCGTGT	TGGTCATGGA	TGGACAGGTG	AAGTTTTAGG	TTACTCTTCA	1920
AAATTTGGCT	GGGAATCAGG	TCTTAGTATT	TCAGAGGAGA	AGAAACCCTA	TGTCGCTGAA	1980
ATAAACGGGA	AACGAGAATT	GTTTAATACG	GCTCCGATTT	TAACCAGCCT	GGATTTTTCA	2040
AATCCAGATG	TAGCTGATAA	GATGGTAGAA	ATTATCAAGG	ATTATGCCAA	GAAAAGACCT	2100
GATGTTAACT	ACTTACATGT	ATGGTTGTCG	GATGCTCGTA	ATAATATTTG	TGAATGCGAA	2160
AACTGTAGAC	AAGAATTGGT	TTCCGATCAG	TATATTCGTA	TTCTCAATCA	ATTGGATAGG	2220
GCTTTAACGA	GTGAGGGATT	AGATACAAAG	ATTTGTTTTT	TGCTTTATCA	TGAGTTGTTA	2280
TGGGCACCTC	AGAAAGAAAA	ATTAGATAAT	CCTGAACGCT	TTACCATGAT	GTTTGCACCG	2340
ATTACAAGAA	CATTTGAAAT	GAGTTATGCA	GATGTAGATT	TTGACAATTC	CATACCTACG	2400
CCTAAACCTT	ATATGCGTAA	TAAAATTATA	CTTCCGAATT	CTCTTGAGGA	AAATTTATCT	2460
TATCTTTTTG	AGTGGCAAAA	AGCATTTAAA	GGAGATAGTT	TCGTATATGA	CTATCCTTTA	2520
GGGCGTGCTC	ATTATGGCGA	TTTAGGCTAT	ATGAAAATTA	GTCAAACAT	TTACAGAGAT	2580
GTATCTTATC	TTTCCAACCT	ACATTTGAAC	GGGTACATTT	CGTGTCAGA	ATTACGTGCC	2640
GGATTCCCTC	ATAATTTTCC	TAATTATGTC	ATGGGGGAAA	TGCTCTGGAA	GAAGACAAGA	2700
AGTTATGAAG	AATTGATTGA	AGAATACTTT	TCTGCTTTGT	ATGGGGAAAA	TTGGCAGTCT	2760
GTTGTTGAAT	ATTTAGAAAA	ATTATCCATT	TATTCCTCTT	GTGATTATTT	TAATGCAATT	2820
GGCAGCCGTC	AAAGTGATGT	TTTAGCGAAT	CATTATTATA	TAGCTTACAA	TCTAGCTGAT	2880
AATTTTTTAC	CAATTATTGA	GGAAAATATT	TCTAAGTTAT	TAAATAGTCA	AAAGGATGAA	2940
TGGAAACAGC	TCAGTTATCA	TCGTGAATAT	GTTGTTAAGA	TGGCGAAGGC	TTTATATCTT	3000
CAAGCAACTG	GAAAAACAAG	GCAAGCTCAA	GATGAATGGA	GAAATGTGTT	GAATTATATC	3060
CGTGGGCACG	AATTGCTATT	TCAATCTAAT	TTGGATGTTT	ATCGTGTAAT	TGAAGTAGCA	3120
AAAAATTACG	CTGGTTTCCA	CTTATAAATC	ATAAGTATAG	AAAATGAACT	AAGGTATTCA	3180
GAGAAGATTG	ATCCTAAATA	TTATGAAATT	TAAGGATTTT	TAAGATATTT	AGGGTCAACT	3240
TTCTATTTAT	ATCGTAGCGA	AGTCATTTTA	ATAATGATGT	GTAAAAGATG	GATCAAGATT	3300
GAGGAGGAAG	AAAGATGAAA	TCAAAAGAAG	AAATAAATAT	GCTTGGTTTT	ACAATTGTCG	3360

548

CTTACGCAGG AGATGCAAGG TCAGATTTGA TGGATGCTTT GGCGTTTGCG AGAGATGGAT	3420
ATTTTGAACA GGCAAGAGAA TTGGTTGAGT CTGCAAACGA CTCAATAGTG TCTGCCCATC	3480
GAGAACAGAC TAATTTATTA GCGGAGGAGG CATATGGAGA TAATTTTGAA GTGAGCTTTA	3540
TTATGATTCA TGGTCAAGAT ACTTTGATGA CAACGATGCT ATTGTATGAT CAGGTAAAGT	3600
TTTTTATTGA TGAATATGAA CGAATTCGAA AGATTGAAGA ACATATTGGT TTGCAATGAG	3660
GATTAGTCAT GGAAAATTTA CAGGTAAAG CCTTACCGAA GGAGTTTTTA TTAGGAACTG	3720
CTACCGCTGC TTATCAAGTA GAGGGTGCAA CTAGGGTAGA TGGCAAAGGA ATAAATATGT	3780
GGGATGTTTA TTTGCAAGAA AATAGTCCGT TCTTACCAGA TCCAGCTAGT GATTTTTATT	3840
ATCGTTACGA AGAGGATATA GCTTTGGCGG CAGAACATGG TTTGCAGGCT TTGCGTTTAT	3900
CTATTTCTTG GGTTCGTATA TTTCCTGATA TAGATGGGGA TGCTAATGTA TTAGCTGTTC	3960
ATTATTACCA TAGAGTTTTT CAGTCTTGCT TAAAACATAA TGTGATTCCG TTTGTTTCTT	4020
TACATCATTT TGATTGCGCT CAGAAAATGT TAGAAACAGG GGATTGGTTG AACAGAGAGA	4080
ATATTGATCG TTTCATACGA TATGCTCGCT TTTGTTTCCA AGAATTTACA GAAGTCAAGC	4140
ATTGGTTTAC AATCAATGAA CTGATGTCTC TTGCTGCAGG TCAATATATA GGAGGTCAGT	4200
TTCTCCAAA TCATCATTTT CAATTATCTG AAGCAATTCA AGCGAATCAT AATATGTTGT	4260
TGGCGCATGC TCTTGCAAGT CTCGAATTTT ATCAATTAGG GATTGAGGGA AAGGTAGGTT	4320
GTATTCATGC TTAAAGCCA GGCTATCCTA TTGATGGGCA AAAAGAAAAT ATTTTGGCAG	4380
CTAAACGGTA TGATGTTTAT AATAATAAAT TTCTATTAGA TGGAACTTTT TTGGGCTACT	4440
ACAGTGAGGA CACGCTTTTT CACTTGAATC AAATATTGGA AGCTAATAAT TCTAGCTTTA	4500
TTATTGAAGA TGGTGATTTA GAAATTATGA AGAGAGCTGC ACCTCTTAAT ACGATGTTTG	4560
GGATGAATTA TTATCGTTCA GAATTTATTC GTGAATACAA AGGTGAAAAT AGACAAGAAT	4620
TTAATTCAAC AGGAATAAAA GGACAGTCTT CTTTTAAATT AAATGCTCTA GGTGAATTTG	4680
TAAAAAACC TGGTATTCCG ACAACAGATT GGGATTGGAA TATTTATCCT CAAGGGTTAT	4740
TTGATATGTT GCTTCGTATC AAAGAAGAAT ATCCTCAACA TCCGGTCATT TATTTAACTG	4800
AAAATGGTAC AGCCCTTAAA GAAGTTAAGC CAGAGGGCGA GAATGATATT ATTGATGACA	4860
GTAAGAGAAT CCGTTATATT GAGCAACATT TACACAAAGT TTTAGAGGCT CGAGATAGAG	4920
GAGTCAATAT TCAAGGCTAT TTTATATGGT CTTTGCAAGA TCAATTTTCT TGGGCGAATG	4980
GCTACAATAA GCGATATGGT CTTTCTTTTG TTGATTATGA AACACAGAAG AGATATATTA	5040
AGAAAAGTGC TCTTTGGGTA AAAGGGCTAA AACGGAATTA AGGTTAGCGA TTTGACTGAT	5100
GTTTAATATG TTTTAAATAT GAGGTTGAAT TTTTATAGG AGGAGTTTTA TGGATAAGCT	5160

549

AGTCGCTGCC	ATTGAAAAGC	AACAAGGGAA	ATTTGAAAAA	ATTTCTACTA	ATAACTATAT	5220
GATGGCTATT	AAAGATGGAT	TCATTGCTAC	TATGCCTTTA	ATTATGTTTT	CAAGCTTTTT	5280
GATGATTATT	ATTATGATTC	CTAAAAATTT	CGGAGTAGAG	TTACCGAGTC	CAGCTATTGT	5340
CTGGATGAGA	AAAGTGTATA	TGTTAACCAT	GGGAGTTTTG	GGTATTATTG	TTTCAGGGAC	5400
TGTTGGAAAG	TCATTAGTTG	GAAATGTTAA	CAGAAAAATG	CCTCACGGAA	AGGTAATAAA	5460
TGATATTTCT	GCAATGTTGG	CAGCCATATG	TAGTTATCTG	GTATTAACTG	TAACGCTTGT	5520
AGTTGATGAG	AAGACGGGAT	CTACAAGTTT	GTCGACAAAC	TATTTAGGAT	CTCAAGGATT	5580
GATAACTTCG	TTTGTCAGTG	CCTTTATTAC	TGTAAATGTT	TACCGATTCT	GTATTAAGCG	5640
AGACATTACT	ATTCATTTAC	CTAAGGAAGT	TCCTGGGGCT	ATATCACAAG	CTTTTAGAGA	5700
TATTTTCCCT	TTTTCTTTTG	TTTTACTTAT	TAGTGGTTTTG	TTAGATATTG	TATCTCGGTT	5760
TAGTTTAGAT	GTTCCTTTTG	CCCAAGTATT	TCAACAAC TA	TTGACTCCTA	TTTTTAAGGG	5820
GGCAGAATCA	TATCCTGCTA	TGATGTTGAT	TTGGTTTATG	TGTGCTTTGC	TTTGGTTTGT	5880
TGGAATTCAT	GGACCATCTA	TTGTCTTACC	TGCTGTTACA	GCTTTGCAAC	TGAGCAATAT	5940
GGAAGAGAAT	GCTCAACTTC	TTGCAAATGG	GCAGTTCCCT	TATCATTCCT	TAACACCTAA	6000
TTTCGGGAAT	TATATCGCTG	CTATTGGAGG	AACGGGGGCT	ACCTTTGTTG	TACCATTTAT	6060
TTTGATTTTC	TTTATGCGGT	CTAAACAATT	AAAATCGGTA	GGTAAAGCTA	CAATTACTCC	6120
TGTTTTATTT	GCGGTAAATG	AACCTCTTCT	ATTTGGTATG	CCTGTTATTT	TGAATCCCTA	6180
TCTTTTTGTC	CCTTTTTTGA	TGACTCCACC	AGTGAATGTA	TTTCTAGGAA	AGGTCTTTAT	6240
TGATTTCTTT	GGAATGAATG	GATTTTATAT	CCAGTTACCT	TGGACCTTTC	CTGGTCCCTT	6300
GGGATTGTTA	ATTGGAACGA	ATTTTCAACT	TATCTCCTTT	GTATTTTTAT	CTTTGATTTT	6360
AGTTGTGAC	ATATTGATTT	ATTTGCCATT	CTGTAGAGCG	TATGATAGAC	AGTTACTGGT	6420
GAAAGAAGAT	ATTGCAAGCT	CAAATGATAT	TATTTTAGAG	GAGGATACAA	GTGAAATAAT	6480
TCCTGGTGAG	ATAGATGAAA	TAAAAAGTAA	GGAGTTGAAA	GTACTGGTTC	TTTGTGCAGG	6540
GTCTGGAACA	AGTGCGCAAT	TAGCCAATGC	AATTAACGAG	GGGGCTAACT	TAACAGAGGT	6600
TAGAGTGATT	GCGAATTCAG	GAGCGTACGG	AGCTCATTAT	GATATTATGG	GTGTTTATGA	6660
TTTAATTATT	CTGGCCCCAC	AAGTTCGGAG	TTATTATAGA	GAGATGAAGG	TGGATGCAGA	6720
AAGATTAGGT	ATTCAGATAG	TTGCTACCAG	AGGAATGGAA	TATATTCATT	TAACAAAGAG	6780
TCCAAGTAAA	GCCTTACAAT	TTGTATTGGA	GCATTACCAA	GCTGTGTAGT	AAGTTTTTCC	6840
ATCTTTTATT	TGAGTAAAGA	TTTTGTTTAC	AGATAGGCTT	GGATTTAAAA	ACGTTCCCCC	6900

550

TTTTTTAATA	TAAGAATCCC	TCTTTCACAA	TTGTAAAAAG	AGGGATTTTG	TATTTTATCT	6960
CTTAGACCAA	GTTCTCTTCA	TAAAGAGAAG	GAGGATTGGG	TAAATCTCCA	AGCGCCCTGC	7020
AATCATTGCA	AAGGATAGGA	GAATTTTGA	GATGGGACTA	AAGATTGAGA	AACTAGAAGT	7080
GGTTCCTAGA	ATAGGCCCGA	TATTATTGAA	ACAGCTAAAG	ACAGCGCTGG	TCACGACCAG	7140
AAAATCATTG	CTATCTAGGC	TGACAATAAA	GATAAGCGCT	AGCAAAATCA	TAGCATAGAT	7200
GACAAAGTAC	TTGAGAATCT	TATGCTGGGT	ATCTTTGTCA	ATCACCGTTT	TATTAACATG	7260
GAGGGTCAAA	ACACGGTGGG	GCGATAGGAT	TGACAAAATT	TGGTTTTTGG	CAATTTTGA	7320
AAGGATGAGG	CCTCGAATAA	TCTTGAGTCC	ACCTGCAGTT	GATCCAGCAG	AGCCACCGAT	7380
TGCCATGAGG	AAAAGGAGGA	TAAACTGGGA	GAAGAGGGGC	CAGTTGGTAA	TATCTCCATA	7440
TCCAAAACCA	GTTGTTGTAA	TGATGTTGGA	AACCTGGAAG	AAGGTCATTT	CAAAGCTCTT	7500
TGAAAACCTT	GGGTAGAGGT	AGAGGGTGTT	GAGGCTAATC	AAGCCTGTAG	AAACCAGTAC	7560
AATGACCAAG	TAAGCCCTAA	GCTCTTCATC	TCCAAAGAAG	GCCTTGATGC	GACGGAGCAT	7620
GAGGTAGTAG	TAGAGGTTGA	AATTTACTCC	AAAAACCAGA	ACTCCGATAC	TGACCAGATA	7680
GGTAATCAGT	GAGCTGCCAT	AGTGGGCAAT	TCCGTCGTTA	TAGACGGTAA	AGCCTCCAGT	7740
TCCCGCTGTC	CCCATAGCAA	TAACAAAAC	ATCGTAGAGA	GGCATAACCG	CTAGATAATA	7800
GATGATGACA	AAGAGGGAGA	AGAGAGCTAG	ATAAAGGAGA	TAGAGAATCT	GGGCAGTGTT	7860
TTTLAGTTTG	GATACAACCT	TGCCAAAAC	AGGACCTGGA	ACCTCAGCCT	TCATCACCTC	7920
TAGGTGGCTA	TTTTTGGCAT	TGTCCATAAT	AGCAAGTGCA	AAAACAAGCA	CTCCCATCCC	7980
TCCAATCAAG	TGGGTAAAAC	TTCGCCAGAA	GAGGAGGGAA	CGGCTGAGAA	CCGAAACGTC	8040
GTTCAAAATA	CTTGCTCCAG	TAGTTGTAAA	TCCAGAACTA	ATTTCAAAAA	AGGCATCAAT	8100
AAGGCTGGGG	ATTTGCCCAG	AAAAGACAAA	GGGGAGACCA	CCAAAGAAAG	ACCAAAGGAT	8160
CCAACAGAGG	GCAACGATCA	AGACTCCCTC	CTTGGCATAA	ATCCGTTGAT	TTTTTGGCTT	8220
CTGTAAACTC	CCTGAACCGC	CTAACAATAC	GAGAATCCCT	ATGGTCGAAA	AGAGGGCTGT	8280
AAAGACTTGG	CTCGATTAC	GGTAATAGAC	AGCAATCGCA	ACAGGAACCA	AAAGAAGAAC	8340
AGCTTCAATC	AAAAGTAATT	TTGAAAGGAG	GTAACGAATC	ATACTTTTAT	TCATTTCTTA	8400
CCTCGCGATC	AAGTCATAAA	TCTTGGTGAT	GTTTGGCAAC	AAGGTTGTTA	CTAGGAGCTT	8460
GTCTCCAACT	TCCAACATAT	CCTCCCCAGT	TGGGAAAATA	GTCTTGCCCT	TTCGAATAAT	8520
GGCTGCAATA	AGAACCCCTT	TTTTCAATTT	CAGTTGAGAA	AGAGGTTTGG	CAGTCATTTT	8580
ATTGGCTTCC	TTGATATGGA	ATTGCAGGGT	TTCGATTTGG	CCATTGGCTA	GATGGTGCAAT	8640
AGCTTGAAGG	TCTGAATACT	GGGCATTAAC	TCGACCACGA	ATAAAGTGCA	TAATCGTATC	8700

551

TACAGCGATG	CTTTTAGGTG	TGATGATACT	TGAAAAATCA	GGCGCATTGA	TAATCTCGAG	8760
GAGACTGGTA	CGATTGACCT	TAGTAATATT	TTTCTGTACA	CCTACCCTGT	CAAGGAACAT	8820
AGATGTAATC	AGATTTTCCT	CATCGACTCC	TGTTAGAGTC	GCAACGGCAT	CATAGTGTTG	8880
AGCACTTTCT	TCCAGCAGGA	TATCTTTTGC	GGTTCCATCT	CCTTGAACGA	TGTAGAGATT	8940
TGGGAATTC	TCGCTAAAGA	AGCTGGCGAT	TTCAGGATTG	ATTTCAATGA	CTTTTGTATC	9000
GATACGACTA	TCTTTGAGAA	TACCAAGTAG	ATAATAGGCA	ATTCTACCTG	CCCCAACGAT	9060
GAGAAGGCTC	TTCACGGCGC	GTGATTTAAA	ATAATTATGG	AAGAGTATCA	TATCGACACG	9120
GTTACCAAGT	ACAAAGATTC	TATCTTTATC	CTGTACAGTC	ATGTCACCGC	TTGGAATGAT	9180
AATTTGATGA	TCCCTCTCTA	TCGCACAGAC	AATGACATTA	CCAAATTTTT	TACGAAAATC	9240
AGAAATGGGC	ATTTGGCAAA	GACCGCTGGT	GGACTTGACG	ACAAATTCCT	TGAGGCTAAC	9300
GCGTCCACCA	GCAAAGCGTT	CGACAGACAG	GGCGTTGGGG	AAGTCAATGA	TATTCGCGAT	9360
AGCGCGGGCA	GCCAAGAGCT	CAGGATTAAC	GATAAGAGAA	AAACCGAGAA	TATTCCTTTT	9420
CTTGAAATAA	GAGTTAGAAT	ATTCAGGGTT	CCGCACCCGA	ACGATAGTTT	CTTTAGCTCC	9480
CATTTTCTTG	GCTAGAACTG	CTGCAATCAT	GTTGACTTCA	TCGTGCTCAG	TCAGGGCGAT	9540
AAAGATATCA	CAATCTTGGA	CGCTGGCTTG	CTCAAGAATG	GCAAAATCGG	CCCCGTTACC	9600
AAGGATACCA	ATGATATCAA	AGCGACTGAC	AATATGATTG	AGAACAGCTT	CGTCTTGCTC	9660
AATCAGCAAA	ACATCATGCT	TTTCTGCAAC	CAAGGAGCGA	CAGAGGGCAA	AACCAACTTT	9720
TCCCCCTCCG	ACAAGGATAA	TTTTCATAAT	AAAACCTACT	TTTTCATGAT	GTAACATCA	9780
TACCCTTTTT	CAAGAAAAAA	TGCACCTACT	AGCTAATAAC	AAGAGTTTTT	AGTGAAAATT	9840
CGCTATAAGG	TAAAACTATA	CCCTAACCAA	TTGAAATAGC	TATTAGCGAC	TTTCTCTGAA	9900
ATATGGTATG	ATAAAGGATA	TACAAGGAGA	TAAAATGAAT	AATAATTTAC	TGGTATTACA	9960
ATCAGACTTT	GGTCTGGTTG	ATGGTGCGGT	ATCGGCTATG	ATTGGAGTGG	CTTTAGAAGA	10020
GTCTCCAACC	TTAAAAATAC	ATCACTTGAC	GCACGATATC	ACGCCTTATA	ATATTTTTGA	10080
GGGGAGCTAT	CGTCTCTTTC	AGACGGTGGA	TTACTGGCCT	GAGGGAACGA	CGTTTGTATC	10140
GGTTGTCGAT	CCAGGTGTCG	GTTCGAAACG	TAAGAGTGTA	GTTGCCAAGA	CTGCAAAAAA	10200
TCAATACATT	GTCACGCCAG	ATAATGGGAC	GCTTTCCTTT	ATCAAGAAAC	ACGTTGGCAT	10260
TGTAGCCATT	CGTGAGATTT	CTGAGGTGGC	CAATAGGCGT	CAAAACACAG	AGCATTCTTA	10320
TACCTTCCAC	GGTCGTGATG	TCTATGCCTA	TACTGGTGCT	AAACTGGCCA	GTGGTCACAT	10380
TACTTTTGAG	GAAGTAGGGC	CAGAGCTCAG	TGTGGAACAG	ATTGTAGAGC	TTCCAGTCGT	10440

552

AGCGACCATC ATAGAAGATC ATCTGGTGAA GGGAGCCATT GATATTCTGG ATGTGCGTTT	10500
CGGTTTCGCTT TGGACCTCTA TCACACGGGA AGAATTTTAC AAGCTGGAAC CAGAATTTGG	10560
TGATCGTTTT GAAGTGACCA TCTATCATGC TGATATGCTG GTCTATCAAA ATCAGGTTGT	10620
CTATGGCAAA TCATTTGCAG ATGTGAGAAT TGGGCAACCS ATcTTTACrc TCAGCaTCTt	10680
CGATTAGCTG GGCAATTCGT TCTAGTTGGA TTTCGTCAAT CAAGGT	10726

(2) INFORMATION FOR SEQ ID NO: 67:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7163 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 67:

TTATCTTTAA CGATATCAAT CAAGATCTGG TCAATAAAGG GATTGGGGCT TATCGTGAAG	60
TTGGCATCCA AGCCCATGGA TATGTCTGTG ACGTGACAGA CGAGGACGGT ATCCAAGCCA	120
TGGTCAAGCA AATCGAACAA GAGGTGGTG TCATTGACAT CCTCGTTAAT AACGCTGGTA	180
TTATCCGCCG AGTTCCAATG TGCGAAATGA GCGCCGCTGA TTTCCGTAAG GTCATCGATA	240
TTGACTTAAA CGCACCATTT ATCGTTTCAA AGGCAGTTAT TCCTTCTATG ATAAAGAAAG	300
GGCATGGAAA GATTATCAAT ATTTGTTCGA TGATGAGCGA ACTGGGACGT GAAACAGTTA	360
GCGCTTATGC TGCTGCTAAA GGGGGCTTGA AAATGTTGAC CCGCAACATT GCGTCTGAAT	420
ACGGTGGAGC CAATATCCAA TGTAACGGAA TTGGACCGGG TTATATTGCC ACTCCTCAAA	480
CAGCACCTCT TCGTGAATTG CAAGAAGATG GTTCTCGCCA CCCATTTGAC CAGTTCATCA	540
TTGCAAAAAC ACCTGCTGCA CGTTGGGGAA ATACTGAAGA TTTGATGGGC CCTGCTGTCT	600
TTCTCGCTAG TGATGCCAGC AATTTTGTCA ATGGCCACAT CCTATATGTA GATGGCGGTA	660
TCTTAGCCTA CATCGGAAAA CAACCTGAGT AAAAATAGAA AGAAGATCTT ATGAAAATCG	720
CATTAATCAA TGAAAATAGT CAAGCTAGCA AGAATCACAT TATTTACGAT AGTCTAAAAG	780
AAGCGACAGA TAAAAAAGGC TACCAATTAT TTAACATATG TATGCGTGGA GAAGAAGGAG	840
AAAGTCAATT AACTTATGTG CAGAACGGAC TAATGGCTGC CATCCTTTTA AATACAAAGG	900
CAGTTGACTT TGTTGTTACC GGCTGTGGTA CGGGTGTAGG GGCTATGCTT GCTTTAAACA	960
GCTTCCCTGG TGTTGTCTGT GGTCTAGCAG TGGACCCAAC TGACGCTTAC CTTTATPCTC	1020
AAATCAATGG TGGTAACGCC TTGTCTATCC CTTATGCCAA AGGATTTGGC TGGGGGGCAG	1080
AACTGACCCT CAAATTGATG TTTGAACGCT TATTTGCTGA AGAAATGGGC GGTGGCTACC	1140

553

CAAGAGAACG	TGTAATCCCT	GAACAACGCA	ACGCTCGTAT	CTTAAACGAG	GTGAAACAAA	1200
TCACCCACAA	TGATTTGATG	ACCATCCTTA	AAATAATCGA	CCAAGACTTC	CTCAAAGACA	1260
CCATCTCTGG	CAAATACTTC	CAAGAATACT	TCTTTGAAAA	CTGCCAAGAT	GATGAAGTTG	1320
CTGCTTATTT	GAAAGAAGTA	TTAGCCAAGT	AAAGCTATTC	TAAACCAGAA	AGGAACTAAT	1380
GGATGACGAA	AATATTACTG	TTTGGCGAAC	CATTAATTTCG	AATTTACCA	TTAGATGCCA	1440
CCAGTATCGG	CGATCATGTT	GCCAGTTCGA	CTTATTTTGG	CGGATCAGAA	ATTAACATCG	1500
CTTGTAATTT	GCAAGCCCTG	GGTATCTCAA	CGAAAGTTTT	TACCGCACTC	CCTGCCAACG	1560
AGATTGGAGA	TCGTTTTCTC	ACATTCTTGA	AACAGCACCA	AATCGATACC	AGTTCAATCT	1620
GTCGGCTTGG	CGATCGAATC	GGCCTCTACT	ATTTGGAGAA	CGGCTTTGGT	TGTCGTCAAA	1680
GTGAAGTTTT	CTACGATCGT	AAGCATACGA	GTATCAGCCA	GATTCGGCCA	AACATGCTAG	1740
ATATGGATTTC	TCTCTTTCAG	GGGATTAGCC	ATTTTCATTT	TAGTGGAATC	ACCGTAGCTA	1800
TCGGTCAAGA	GGTCCGTGCG	ATCCTTCTCC	TACTCTTGGA	AGAAGCCAAG	CGCCGAGGAA	1860
TTGTGCTTTC	AATGGATCTC	AATCTGAGAA	CAAAGATGAT	TTCAGTCCTA	GAAGCCAAGT	1920
ATGAATTTTC	TAAGTTTGCA	CGTTTTACTG	ACTATTGCTT	CGGTATTGAT	CCTCTCATGA	1980
TTGATGACCA	AAATCTAGAG	ATGTTTCCAA	GAGACAGTGC	TAGCCTAGAA	GAGGTGGAAA	2040
ATCGCATGCG	ACTTTTAAAA	GAAGCCTATG	GTTTCAAGGC	CATTTTCCAT	ACCCTCCGCT	2100
CTAGTGATGA	GCAAGACAAA	AATGTCTATC	AAGCCTATGC	TCTAGAAGAA	CTATTTGAAG	2160
AGTCTGTCCA	ACTAAAACT	GCAGTCTATC	AACGAATTGG	TAGCGGGGAT	GCCTTTATAT	2220
CTGGTGCCCT	TTACCAACTA	CTCCATCATT	CCTCCCTAAA	AACTACCATT	GACTTTGCAG	2280
TTGCGAGCGC	AACTCTCAAA	TGCACTCTTC	CAGGAGACCA	TCTCTCCACT	TCCTCAACTA	2340
GTATTGAAAA	TTTACTGGCA	AATGCACAAG	ATATCATTCG	TTAGGAGAAT	TACATGACCA	2400
AATCAGATAC	GATTATTGAA	CTAAAAAAC	AAAAAATTGT	CGCTGTTATT	CGAGGAAATA	2460
CAAAGGAAGA	AGGACTACAA	GCCTCGATTG	CTTGATCAA	GGGCGGTATC	AAAGCTATTG	2520
AAATCGCCTA	TACCAATCAG	TATGCAGGAC	AAATCATCAA	GGAAC TTGTA	GACTTGATC	2580
AGGACGATCA	GAGTGTTTGT	ATCGGTGCAG	G TACTGTGCT	TGATGCCGTA	ACTGCTAGAG	2640
ATGCCATTCT	AGCTGGAGCA	AATTACGTTG	TTTCTCCATC	TTTCCATGCT	GAAACTGCGA	2700
AAATGTGCAA	TCTCTACAGC	ACACCGTACA	TTCCAGGCTG	TATTACCCTC	ACAGAGATCA	2760
CGACTGCACT	TGAAGCCGGT	AGTGAAATCA	TCAAAC TCTT	CCCAGGTAGT	ACTCTCAGTC	2820
CAGCATATAT	CTCTGCAGTC	AAGGCACCGA	TCCCACAAGT	TTCCGTAATG	GTAACCGGAG	2880

554

GAGTCGGCCT	AAACAACATC	CCTCAATGGT	TCGCTGCTGG	TGCAGATGCC	GTTGGAATTG	2940
GTGGCGAACT	CAATAAACTC	GCTTCCCAAG	GCAACTTTGA	CCGCATCAGC	GAGATTGCCC	3000
AACAGTATAT	TACACTCAGA	TAAAATCATA	ACTACCCGTC	TAACGGGTGG	TTTATCTCAG	3060
AGCTATAAGC	CCAAATCATC	AGCCAGCGCC	TAAAGACGCT	GGCTTTCACG	TTGTTCAAGC	3120
CTTATTGCTC	TTGACTCGTC	ACTTGCCTCT	TTAAGAGACT	TTGGTATTAC	TTACCACTAT	3180
CCCTAAAGGG	ATCCTCATAT	TCTTTTACAC	TCAATTTATC	TAGTGCTATA	GTAGATTGAA	3240
ACTGGAATAG	TACACCTCTG	CTTCTAAAAC	ATTGTTAAAA	ATCGATTTGA	CTGTCCTGAT	3300
CGATTTTGTC	CTGTTCTTAT	TTCATTTTAC	TATATATCAT	ACTTTACTCG	TTCTCAAATT	3360
TTCATACTCA	TGAAGAAATC	ATCCACTCGA	TAATTTCTTT	AATCTTGACT	ATATTTCTTA	3420
ATTGTGGCTT	CATTAAGCCC	TACTGGACTT	ACATAATAAC	CTTCCTCCCA	GAAATGCCGA	3480
TTCCCAAAC	TGTACTTGAG	ATTGGCGTGT	TTGTCAAACA	TCATGAGTGC	ACTTTTGCCT	3540
TTTAAATACC	CCATAAAACT	TGAAACACTT	AGCCTCGACG	GAATACTGAC	TAACATGTGT	3600
ACATGGTCTG	GCATTAAGTG	ACCCTCGATC	ATTTCAACAC	CTTTATAACT	ACACAAGCGA	3660
TGAAATATTT	CGTCTAAACT	ACTTCTATAT	TGATTATAGA	TGACTTTTCG	TCTATACTTA	3720
GGGGTGAACA	CAATATGATA	GAACACCTCC	ACTTTGTGTA	TGATAAACTA	TGAGTCTTTT	3780
GTGCCATATT	TTTTCTCCTT	TCGCTTTACA	ATTGGATTGA	ACACCTTTAT	TGTATCGCGT	3840
TTGGAGTTTT	TTTGGTATAA	CCTTCGACGC	GCACCCGTAT	AGCGGGTGGT	TGTTTTGTCT	3900
CGCACCTCAC	GGAGCGAGAC	GGACTAATAT	AGTGGAGTGA	AATAGGATAC	GAACAAATTG	3960
ATTAGGAAAA	TCAAATGAAT	TTATAGAAAT	CTTTTAGCAG	TTATAACGTT	CTATTCTAGT	4020
TTCAAAACGC	TATAGTCACA	TAATAATGAA	GTAAAAAAGG	ATAAGTATCA	ACTTATCCTT	4080
TTTTTAAAGA	AAAATCCGAA	GATATTTGGC	CTTCTTCGGA	TTTTTTCTAT	TTTCCACAGT	4140
TTCATGTAAT	TCATCTAGAT	GATGAACAAA	TTAGTTGTTC	TTTCCTCTAC	GGAATAGATA	4200
AAATGCCCCA	AGTAGCAAGA	ACCCTAGACT	TGCCAAGATT	GACTGACCTT	CTCCTGTCTG	4260
AGGGAGATTC	TTTTGATCCG	AATGGTTCTT	TTCTCTTCA	GATTTTTCCT	TTTCTTTTGA	4320
ATTCTGTACT	TGTGGCTGAG	CTGCTTGCTC	TAGCTTTTTA	AAGACTTCCT	GATCTGGAGC	4380
TGATTCCTGG	GTTTCAGGAT	TATAGTAGGC	AATCTTATAT	TCATCCCCTT	CTTTTCGAAT	4440
GGTATAGACT	CCACGTTTCA	AACTTGGAA	TTGGTTGGAA	ATAGTAGAGA	CAGAATCATC	4500
ATATTTTACA	ATGCCCCAAA	CTCCTTGTTT	AGCATCATAA	ACAGACTGAA	GGGTTTCGTT	4560
ATTTTCGATG	AGGCTACTTT	CTAACTCTTT	TATCATTTGA	TTGAAGGTGG	CACGATCCAC	4620
GTTAGGAATG	AGCATATAGC	CATAAGAATC	TCTATTTTGC	TTATGAGCCT	GACTAATCGT	4680

555

AAGAAATTCA	TTTTCAACTT	CCTTGTCTGA	CTGTCCTTCA	TTGATATCCT	TCCAGGCTCC	4740
CTTTTGCAA	GCCTTACTCA	TACTGATTGA	ACTCTTCTTA	AAGAAAAAGT	AACCAATATT	4800
CTTTTTCGAA	TCGAACGATT	CTAAAAAGAC	ACTTTGGGTT	TCAGGATAAT	CCTTTTCTTG	4860
TTCTGTAAGG	GAGGCTTCTT	TATCATTGAC	ATAGACTTTA	TATGGATTAC	CTGATTCCAG	4920
TTTTCTCTGG	TCAATTGTAG	TTGCAGCAGT	ATCTGTTGAA	GTGTTTTGGA	TATTGCTTCC	4980
TAAAAAGGCG	ATCTTATCCT	TTAGCATAAA	CCAGCTCTTA	TGAGCAGTCA	ATGTTTGATT	5040
CCAGTTGGTG	AAATCCATGG	TTGCTGTGCG	ATTGGCATCA	TCTAGTTTGC	TCGTTCCAAC	5100
GAAAGCAGAC	GGTAAAACTT	TACCTGTATC	GCTATCCGCT	CTCTTAGCAT	CCGTCTCTGT	5160
TGTACCAGGC	ATCTTATATG	GATTAAGTGT	TGGCCAGTAG	CCATCGCTAT	AGTGAACAA	5220
ATCGCCATTG	TAAAGATAGA	ACATCCCATC	ACTCGTATAC	CAACCACGTT	TATTTTCCTT	5280
G TTCATGTGT	TCGTAATTCA	AGGTACGACT	GGAAAAGAGT	GACAAGCCAA	ATCCAAACCC	5340
TTTCTCTGCA	TTGTACATGG	CTGTTTTATC	CATCTTGTTA	AAGGCAGATA	GGTAACTTGG	5400
TCTTGGAACA	CTTGCGACTC	CTGCATCACT	TAACAAGGAT	TGCATCAAAC	TGATATCCTT	5460
ATAAGTCTTC	AAATTCTTAA	AGACATCATA	ATAACTATCC	GATTGAACAA	TGGTCTTCAC	5520
AAGACTCTGC	AAACATTGTT	TGGTTTCTCC	TTGAGACATA	TCCGCTATTG	GGTGAATCCC	5580
TCTTAGTACT	TCTACTGCGG	CCACGTGCCC	CTCGCTATTT	GCACGACTGA	TCGAGCGTCC	5640
ACGACTCATA	TCCATCAACT	CTCCATTAC	CAGCAAAGGA	GCAAACGATT	TATCAATCCA	5700
GTGGTACATG	GTTTGCATTT	TATCTTTATC	GATTGGATTG	TTGGTCTTTT	GAATGACTGG	5760
CAACAGTTGA	GACAGGCCAT	CAATCAAAAC	ATTCCCATAA	GCACCCGTAT	AGGCAACATT	5820
GGTGTGGTCG	ATATAGGATC	CATCTTGATA	AAAACCTTCA	CCTTGGTCTA	CCAACTTGAA	5880
CACTTGCTCA	ATCGAGCGAA	TGGTAGAAGA	AATTTCTTGA	TCATCCTTAC	GCAGTAAACC	5940
AGCTATTACT	TTTACCCTTC	CCATATCAAC	TAAGTTTCCA	CCTAGAGCCT	TGAATGGGTT	6000
ATCAGTCGTC	TTTCGGAAAT	GTTTCGGGATC	TGGTACAAAT	TTTTCAATCA	CATCTGTATA	6060
TTTTTTAATT	TCCTCATCAG	AGAAGTATTC	TTTCATCAGA	GACAAGGTAT	TGTTGATGGC	6120
ACGAGGTGTA	CCGATTTTCAT	AATCCCACCA	GTTCCCAACA	ATGCTCTTTT	CACTATTGTA	6180
GACATGTTTA	TGCATCCATT	CCATGGAATC	CCTGACTGTT	CGAACGACAG	TTTCATCTTG	6240
ATAATAACGA	GAAGAAGGAT	TGGTCACTTG	CTTGGCCATC	TCCTCCAATT	TCCGATAAGT	6300
GGCAGTCAGA	TTTGCAGACG	TTTTATAATT	TGAAAATTTT	TCCCACAAAT	AGGTGCGGTC	6360
CGCCTGACTT	GAAATACTGG	ATAGGCTATC	AGCTACCTTT	CCTTCCAATT	CCTGGTTTAA	6420

556

TTTGGCCATC	TGTTTCATTTT	TAGAATCATA	GTATTGATTC	CCAGCGATGA	TGCCATTCCA	6480
GTCATCCAAA	CGGTCTGTGT	ATGCATCCTT	AACAGAGGCC	AGAATCTTCA	AAGGAATCTT	6540
TTTCACTTCC	TTGCCATCTT	TACTGACAAT	GACATTGGTT	GTCCCTTCCT	TAAGAGGTTC	6600
TAAAATTCCA	TTTTTGACTG	AAGCAACGTC	AGGATTTTCT	ACCTTATAAG	TATAGTCCGC	6660
AAGAGAAAAA	ACATGTTTTT	TTCCAATTGG	TAAATCAATC	TTTTCCTCAA	GCTGTTTATC	6720
TGTTTGAGAA	TCCTCAGAAA	GCTGGTCTGC	TACCTCTACC	AGCTCAATAT	CCTTAAAGGA	6780
AACAGTCCCA	GTCCTGTTT	CATAGAATAA	CTCCAGCTTG	ATTTTATCAA	CATCTAAAGT	6840
CGGGCTATAG	TCTGCTTCAA	TGGTCTGCCA	GTCCTTTGTT	CCTGACGTCG	TTGCAGAATT	6900
CCACAATCGC	TTGTCCTTAC	CACTTTCCTC	AATGATACGA	ACTTTGGCAA	TCCCGATTTT	6960
ATTATCTGTT	TTAATCTTGA	AACGCAGTTT	ATACTTTTTC	TTAGCTTCAA	TAGGAACCAT	7020
ACGGTGAAGC	GCTGCCCTTA	ATTTCTCATG	GCTTGAGATA	GTGATAGCCC	CATCCTTAGC	7080
CTCAATGACT	CGAGTTGAGG	CATCTGCACT	ATTCTTCTGG	TCTACCCAAG	CTGACCACCC	7140
CCTGAGCTTT	GCTTCCTGTC	CGG				7163

(2) INFORMATION FOR SEQ ID NO: 68:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9244 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 68:

CGTTATAACA	TACATGTAAG	CGGTACCCAA	AATGGTGCCA	AGTCAAAATT	TTTAAGGAGG	60
AAAATACATG	TCTTCACATC	CAATTCAGGT	CTTCTCAGAA	ATTGGGAAAC	TGAAAAAAGT	120
TATGTTGCAC	CGTCCAGGCA	AGGAGTTAGA	AAACTTGTTG	CCGGACTATC	TTGAAAGGCT	180
TCTTTTGGAT	GATATTCCTT	TCTTGGAAGA	TGCTCAAAAA	GAACATGATG	CATTTGCCCA	240
AGCTCTTCGC	GATGAAGGAA	TTGAGGTTCT	CTACCTAGAA	CAACTCGCTG	CTGAATCATT	300
GACCTCTCCA	GAAATCCGCG	ATCAATTTAT	CGAGGAATAC	TTAGACGAAG	CCAACATCCG	360
TGATCGTCAA	ACCAAGGTTG	CTATTCGTGA	ATTGCTTCAC	GGCATCAAGG	ACAACCAAGA	420
ATTGGTTGAA	AAAACAATGG	CTGGGATTCA	AAAAGTTGAA	TTGCCAGAAA	TTCCTGACGA	480
AGCTAAAGAT	CTAACTGACT	TAGTTGAATC	AGAGTATCCA	TTTGCAATTG	ACCCGATGCC	540
AAACCTCTAT	TTCACTCGCG	ACCCATTTGC	AACAATTGGA	AACGCCGTAT	CGCTTAACCA	600
CATGTTTGCA	GACACTCGTA	ACCGTGAAAC	ACTCTACGGT	AAGTATATCT	TCAAATACCA	660

557

CCCAATCTAT	GGCGGAAAAG	TGGATTTGGT	CTACAACCGT	GAAGAAGATA	CGCGTATCGA	720
AGGTGGAGAC	GAGTTAGTTC	TTTCTAAAGA	CGTCCTTGCA	GTAGGTATCT	CTCAACGTAC	780
AGACGCAGCT	TCTATCGAAA	AACTTTTGGT	CAACATCTTC	AAGAAAAATG	TTGGCTTCAA	840
GAAAGTTTGT	GCCTTTGAAT	TTGCTAACAA	CCGTAAATTC	ATGCACTTGG	ATACTGTCTT	900
CACTATGGTA	GACTATGACA	AGTTCACAT	TCACCCAGAA	ATCGAAGGCG	ACCTTCACGT	960
TTACTCAGTT	ACTTACGAAA	ACGAAAAACT	TAAAATCGTT	GAAGAGAAAG	GTGACTTAGC	1020
TGAACTTCTT	GCTCAAAACC	TTGGTGTAGA	AAAAGTTCAT	TTGATTCGTT	GCGGTGGTGG	1080
CAATATCGTA	GCAGCTGCGC	GTGAACAATG	GAACGACGGT	TCTAACACTT	TGACCATCGC	1140
ACCTGGTGTG	GTAGTTGTTT	ATGACCGCAA	TACCGTGACC	AATAAGATTT	TGGAAGAATA	1200
CGGGCTTCGC	TTGATTAAGA	TTCGCGGAAG	TGAATTGGTT	CGGGGCCGTG	GTGGACCTCG	1260
TTGTATGTCT	ATGCCATTTG	AACGTGAAGA	AGTGTAATCG	CTGTTTCGATA	TTCGTCAATA	1320
GAAAATGTAA	AAAATAGAAA	GAGGAAATAA	TAAAATGACA	AATTCAGTAT	TCCAAGGACG	1380
CAGCTTCTTA	GCAGAAAAAG	ACTTTACCCG	TGCAGAGTTA	GAATACCTTA	TTGGTCTTTC	1440
AGCTCACTTG	AAAGATTTGA	AAAAACGCAA	TATTCAACAC	CACTACCTTG	CTGGCAAGAA	1500
TATCGCTCTC	CTATTTGAAA	AAACATCTAC	TCGTACTCGT	GCAGCCTTTA	CAACTGCGGC	1560
TATCGACCTT	GGTGCTCACC	CAGAATACCT	CGGAGCAAAT	GATATTCAGT	TGGGTAAAAA	1620
AGAATCTACT	GAAGATACTG	CTAAAGTATT	GGGACGTATG	TTTGACGGGA	TTGAATTCCG	1680
CGGATTCAGC	CAACGTATGG	TTGAAGAATT	GGCAGAATTC	TCAGGCGTTC	CAGTATGGAA	1740
CGGTCTAACT	GACGAATGGC	ACCCAACCTA	AATGCTCGCT	GACTACTTGA	CTGTTCAAGA	1800
AAACTTCGGT	CGCTTGGAAG	GCTTGACATT	GGTATACTGT	GGTGATGGAC	GTAACAACGT	1860
TGCCAACAGC	TTGCTCGTAA	CAGGTGCTAT	CCTTGGTGTC	AATGTTTACA	TCTTCTCACC	1920
AAAAGAACTC	TTCCCAGAAA	AAGAAATCGT	TGAATTGGCA	GAAGGATTTG	CTAAAGAAAG	1980
TGGCGCACAT	GTTCTCATCA	CTGAAGATGC	TGATGAAGCA	GTTAAAGATG	CAGACGTTCT	2040
TTACACAGAC	GTTTGGGTAT	CAATGGGTGA	AGAAGACAAA	TTCGCAGAAC	GTGTAGCTCT	2100
TCTTAAACCT	TACCAAGTCA	ATATGGACTT	AGTTAAAAAA	GCAGGCAATG	AAAACCTGAT	2160
CTTCCTACAC	TGCTTGCCAG	CATTCCACGA	TACTCACACT	GTTTATGGTA	AAGACGTTGC	2220
TGAAAAATTT	GGTGTAGAAG	AAATGGAAGT	AACAGACGAA	GTCTTCCGCA	GCAAGTACGC	2280
TCGCCACTTC	GATCAAGCAG	AAAACCGTAT	GCACACTATC	AAAGCTGTTA	TGGCTGCTAC	2340
ACTTGGTAAC	CTTTATATTC	CTAAAGTATA	ATTTTAGATA	ATAAACCGTC	TACCAACAGC	2400

558

TATGAGGGCT	GCGACTAATA	GCTTTAGTCC	GGTCCTCTTT	TATGTAATGG	TAATCTATTA	2460
TTTCTTATAA	AATATGTGAA	AAATCATTA	ATTGAAATCT	AAACGCATTC	TATTGAGTGT	2520
GATAAAGGAG	AATTTATGGC	AAATCGTAAA	ATTGTAGTAG	CTTTGGGAGG	AAATGCGATT	2580
CTTTCTTCTG	ACCCATCAGC	AAAGGCTCAA	CAAGAAGCTT	TAGTTGAAAC	AGCTAAGCAT	2640
CTTGTAATAA	TGATTAAAAA	TGGAGATGAT	CTGATTATCA	CTCACGGTAA	TGGACCTCAA	2700
GTTGGGAATC	TCTTGCTCCA	ACATTTGGCA	TCAGACTCTG	AAAAGAACCC	TGCCTTCCCA	2760
CTCGACTCAC	TTGTCGCTAT	GACAGAAGGT	AGCATCGGTT	TCTGGTTGAA	AAATGCTTTG	2820
CAAAATGCTC	TCTTGGATGA	AGGCATCGAA	AAAAATGTTG	CCTCTGTTGT	AACGCAAGTT	2880
GTCGTAGATA	AAAATGATCC	AGCTTTTGTT	AACCTGAGTA	AACCAATCGG	TCCTTTCTAT	2940
TCAGAAGAAG	AAGCAAAAGC	AGAAGCCGAA	AAAAGCGGAG	CGACTTTCAA	GGAAGATGCT	3000
GGCCGTGGCT	GGCGTAAGGT	CGTTGCCTCA	CCAAAACCTG	TTGACATCAA	AGAAATTGAA	3060
ACCATCCGTA	CTCTTTTAAA	TAATGGTCAA	GTCGTCGTAG	CTGCAGGTGG	TGGCGGTATT	3120
CCCGTCGTCA	AAGAAAACAA	TGGACATTTG	ACTGGTGTCG	AAGCGGTTAT	TGATAAAGAC	3180
TTCGCTTCCC	AACGTTTGGC	AGAATTGGTT	GATGCAGACC	TCTTCATCGT	TTTGACAGGT	3240
GTAGATTATG	TATTTGTAA	CTACAACAAG	CCAAACCAGG	AAAAATTGGA	ACATGTGAAT	3300
GTTGCCCAGC	TGGAAGAATA	TATCAAACAA	GATCAGTTTG	CACCAGGTAG	CATGCTTCCA	3360
AAAGTAGAAG	CAGCTATCGC	TTTTGTCAAT	GGTCGTCCAG	AAGGAAAAGC	AGTTATTACT	3420
TCCCTTGAAA	ATCTAGGCGC	CTTGATTGAA	TCTGAAAGCG	GAACAATTAT	TGAAAAAGGA	3480
TAAGTTGTTT	TACTAATAAG	ATGTATTCTA	TTTCTAGTAT	CTTTATATCA	AATTAGAAAT	3540
TATTCTTGAA	AACATGTACA	ATATTTCAAA	AGATACTAGT	TTTAGACTTT	AATATGGTAA	3600
AACAAATATA	AATAGAAAGC	GTTTTCTTGA	ATGTTTATTT	AAGAAAGTAG	TTGGTTTTTT	3660
ACACTTTGTT	AGACATCAGG	AGGAAAAACA	AATGAGTGAA	AAAGCTAAAA	AAGGGTTTAA	3720
GATGCCTTCA	TCTTACACCG	TATTATTGAT	AATCATTGCT	ATTATGGCAG	TGCTAACTTG	3780
GTTTATCCCT	GCGGGGGCCT	TTATAGAAGG	TATTTACGAG	ACTCAGCCTC	AAAATCCACA	3840
AGGGATTTGG	GATGTCCTCA	TGGCACCGAT	TCGGGCTATG	CTAGGTACTC	ATCCAGAGGA	3900
AGGTTGCTC	ATTAAAGAAA	CGAGCGCAGC	GATTGATGTA	GCCTTCTTCA	TCCTTATGGT	3960
TGGTGGTTTC	CTTGGCATTG	TCAACAAAAC	TGGTGCTCTT	GACGTAGGGA	TTGCCTCTAT	4020
CGTGAAGAAG	TATAAGGGCC	GCGAAAAAAT	GTTAATTTTG	GTACTGATGC	CTTTGTTTGC	4080
CCTCGGTGGT	ACAACCTTATG	GTATGGGTGA	AGAAACAATG	GCCTTCTATC	CACTCCTTGT	4140
GCCAGTTATG	ATGGCCGTTG	GTTTTGATAG	CCTGACTGGT	GTTGCAATTA	TTTTGCTCGG	4200

TTCTCAAATC	GGCTGTTTGG	CATCTACTCT	GAATCCATTT	GCGACAGGTA	TTGCTTCAGC	4260
GACTGCGGGA	GTTGGTACAG	GGGACGGTAT	CGTACTTCGT	CTGATCTTCT	GGGTTACCTT	4320
GACTGCTCTT	AGTACTTGGT	TTGTTTACCG	TTATGCGGAT	AAGATTCAAA	AAGATCCGAC	4380
TAAGTCACTG	GTTTATAGTA	CTCGCAAAGA	AGATTTGAAA	CACTTTAACG	TAGAAGAATC	4440
TTCATCTGTA	GAATCTACAC	TTAGCAGCAA	ACAAAAATCA	GTTCTCTTCT	TATTTGTGTT	4500
GACATTCATC	TTGATGGTAT	TGAGCTTCAT	TCCATGGACA	GACCTTGGCG	TTACCATTTT	4560
TGATGACTTT	AATACTTGGT	TGACTGGTCT	TCCAGTTATT	GGTAATATTG	TCGGTTCATC	4620
TACTTCTGCA	CTAGGTACTT	GGTACTTCCC	AGAAGGCGCA	ATGCTCTTTG	CCTTTATGGG	4680
TATCCTGATT	GGTGTTATTT	ATGGTCTTAA	AGAAGATAAG	ATTATCTCTT	CCTTCATGAA	4740
TGGTGCTGCT	GACTTGCTCA	GTGTTGCCCT	GATCGTAGCG	ATTGCTCGTG	GTATTCAAGT	4800
TATCATGAAC	GACGGTATGA	TTACCGATAC	AATCCTCAAC	TGGGGTAAAG	AAGGCTTGAG	4860
CGGTCTATCT	TCACAAGTCT	TTATCGTTGT	AACTTATATC	TTCTATCTAC	CTATGTCATT	4920
CTTGATCCCA	TCTTCATCTG	GTCTTGCCAG	CGCAACTATG	GGTATCATGG	CTCCACTTGG	4980
AGAATTTGTA	AATGTCCGTC	CTAGCTTGAT	TATCACTGCT	TACCAATCTG	CTTCAGGTGT	5040
CTTGAACTTG	ATTGCACCAA	CATCTGGTAT	TGTGATGGGA	GCTCTTGAC	TTGGACGTAT	5100
CAACATTGGT	ACTTGGTGGA	AATTCATGGG	CAAACCTCGTA	GTCGCTATTA	TTGTAGTGAC	5160
CATCGCCCTT	CTTCTCCTTG	GAACCTTCCT	TCCATTCCCTA	TAAAATAGTG	AGTGAGGTGA	5220
TTCCATGAAA	ATAGATATAA	CAAATCAAGT	TAAAGATGAA	TTTCTTATAT	CATTAAAAAC	5280
CTTGATTTCC	TATCCTTCAG	TACTCAATGA	AGGAGAAAAT	GGAACACCTT	TTGGACAAGC	5340
AATCCAAGAT	GTCCTAGAAA	AACTTTTAGA	GATTTGTGCGA	GACATAGGTT	TCACTACCTA	5400
TCTTGACCCT	AAAGGTTATT	ACGGATATGC	AGAAATCGGT	CAGGGAGCAG	AGCTTCTGGC	5460
CATTCTCTGT	CATTTGGATG	TTGTTCCATC	AGGTGATGAA	GCAGATTGGC	AGACACCGCC	5520
ATTTGAAGCA	ACTATCAAAG	ACGGCTGGGT	ATTTCGGACGT	GGTGTCCAAG	ATGATAAAGG	5580
CCCTTCGCTC	GCAGCTCTCT	ATGCAGTAAA	AAGCTTGCTG	GACCAAGGTA	TTCAGTTCAA	5640
AAAGCGCGTA	CGCTTTATCT	TTGGTACCGA	TGAGGAAACC	CTCTGGCGCT	GCATGGCACG	5700
CTACAATACC	ATCGAAGAAC	AGGCCAGTAT	GGGCTTTGCA	CCTGACTCAT	CTTTTCCTCT	5760
GACCTATGCT	GAAAAAGGGC	TTCTACAGGT	CAAACCTTCAT	GGCCCTGGAT	CGGATCAACT	5820
AGAGCTTGAA	GTAGGAGGCG	CCTTTAACGT	TGTACCAGAC	AAGGCCAACT	ACCAAGGTCT	5880
CCTCTATGAA	CAGGTTTGTA	ACGGTCTCAA	AGAAGCTGGT	TATGATTACC	AAACCACTGA	5940

560

ACAAACCGTA	ACGGTTCTCG	GAGTGCCAAA	GCATGCTAAG	GATGCTAGTC	AAGGTATCAA	6000
TGCTGTCATC	CGACTAGCTA	CCATTCTTGC	TCCTCTCCAA	GAACACCCTG	CTCTCAGTTT	6060
TCTTGCAACA	CAAGCAGGTC	AAGACGGCAC	AGGAAGACAA	ATCTTTGGTG	ATATAGCAGA	6120
TGAACCTTCT	GGTCACCTAT	CCTTTAATGT	CGCAGGTCTC	ATGATCAATC	ATGAACGTTC	6180
TGAAATCCGT	ATTGACATTC	GGACTCCTGT	CTTAGCTGAC	AAGGAAGAAC	TAGTAGAGTT	6240
GCTTACAAGA	TGTGCACAAA	ACTACCAACT	CCGCTACGAA	GAGTTTGACT	ATCTAGCGCC	6300
TCTATACGTC	GCAGAAGACA	GTAAACTCGT	TAGCACACTG	ATGCAAATCT	ACCAAGAAAA	6360
GACTGGCGAT	AACAGTCCTG	CTATTTTCATC	CGGTGGTGCC	ACTTTTGCTC	GCACCATGCC	6420
AAATTGTGTA	GCCTTCGGCG	CCTTATTCCC	AGGAGCGAAG	CAGACAGAAC	ATCAGGCAAA	6480
TGAATGTGCC	GTTCTAGAAG	ATTTGTACCG	TGCTATGGAT	ATTTATGCCG	AAGCCGTCTA	6540
TCGACTTGCA	ACTTAATCAG	GCAACTGTTT	CTACCAAAAA	AAATCGACCG	ATTAATGAAC	6600
TGCACCCCAA	AAGTTAGACA	GAATAAATCT	AACTTTTGGG	GTGTTTTATT	ATGAAATTGA	6660
GTTATGAAGA	TAAAGTTCAG	ATCTATGAAC	TAAGAAAGCA	AGGACAAAGC	TTCAAACAGC	6720
TTTCAAAAAG	ATTTGGTGTG	GATGTTTCTG	GTCTAAAGTC	ATCTGAATCT	TTGAGATGAG	6780
CTTTATAAAT	CGCTTTTTTC	AGTTTTTGCA	CTGGTGTTTC	GATAAACTCA	AACTTTTTAG	6840
CCGTGGTATT	GCCTGATTTT	ATAGTATATT	GAAACTAGAA	TAGTACACCT	CTCCTTCTAA	6900
AACATTTTTA	GAAATCGATT	TGACTGTCCT	GATCGATTTG	TCCTGTTCTT	ATTTCATTTT	6960
ACTATATTTG	AGCCACTTCG	TCTTTAACGG	CTTTATTCAT	AAGCTCTTGT	AATTTTTCTT	7020
TACTATCAAT	TACTTCTGAT	TTTCCGTTGT	AATTTATTGT	AATAGGTTTT	AACTTACCTA	7080
ATTTCTCGAC	ACGCTCATTA	ATTTGATCTT	TTTTGAAGGC	TGCTTATGTT	TTTCCTAAGA	7140
TTTTTTTCAA	AATATATTTA	TCAGATAGCG	GTTTGTCTTC	TTCTTCAGCT	TGGTTTTTGT	7200
ATTAATTTGA	AACATAAGGA	ACAAATCCTT	CATAGTAACC	TAATGCTCCC	ATAAGTTCAA	7260
AAGCTTGTTT	TCTAATTCAA	ACCATTGCAA	CTCAGATTTT	AGCTTTTCAG	ATAAATCCTG	7320
CTCATCCAAA	TAATGACTTG	AAATTAGTGC	TGAACTCGTT	TCTGTATCCT	GTACAGGCTG	7380
AGCACCCATA	CCAGCAAAAA	ATAAACTCGT	TCCTAGCAAG	ACCGAACAAG	CTCCTATTGC	7440
ATATGGCCTC	AAAGAAAAAC	GCTGCTTTCT	CTCAAAATGA	AATTCTTTCA	TCCCATCTCC	7500
CATCATTCAT	TATTACTGTA	TATTTTGTAT	ATCAGAAATA	GTTTGTATTC	ACAAATCTTT	7560
CTAGTTATTC	CCTTATCATT	CCTAATTAAG	GGAGATAACA	TACAATAATT	TTTAGTTAAA	7620
TGTATATCGA	TGTTTTTTGT	TTTTCTTAAT	AAACGCAATA	CAAAAAGAGC	CTGTTACCAA	7680
GCTCTTTGTA	CTCAATGAAA	ATCAAAGAGC	AAATTAGGAA	ACTAGCCACA	GGTTGCTCAA	7740

561

AACACCGTTT TGAGGTTGCA GATAGAAGTCAG CTCAAAACAC TGTTTTGAGG	7800
TTGCAGATAG AACTGACGAA GTCAGTAACA TCTATACGGC AAGGCGACGC TGACGTGGTT	7860
TGAAGAGATT TTCGAAGAGT ATTAGTCTAT TATTTCTTCT CAGCGCGAAG GGCTGACAAG	7920
ATTTGTGTTT GGATATCATC CACACCATTG GGAGTATTTG GTAAAAAGAT AGTTTGATTT	7980
CCTTTAGAGG CAAAGGTATT CAAGGTATCC AAATACTGGT TGGTCAAGAG GATAGACATG	8040
ATTTGTTCTT CTGTCATGCC AACATTGGCT TCCTTGAGTT CGGTGATAGA CTCTGCCAAT	8100
CCATCCACAA TCGCCTTACG TTGTTGGGCA ATCCCCACAC CATGAAGGCG GTCTTTTCT	8160
GCTTCTGCTT CAGCTGCAGT GACAATTTTA ATCTTGTCAG CTTCCGCCAA TTCTTGCTGCT	8220
GCGACCCGCT TACGTTGCGC CGCATTGATT TCATTCATGG ATTGCTTAAC TTCTGCATCT	8280
GGTTCGACCT TGGTAATCAA GGTTTTCACG ATAATGTAGC CGTAAGTGGT CATTTCTTCT	8340
GCTACTTGGT GTTGAAGTTC AAGGGCAATC TCATCTTTTT TCTCAAACAA TTCATCCAAG	8400
GTAAATTTTG GAACAGAAGA GCGAAGAGCA TCTTCGATAT AAGATTTAAT CTGAGATTCT	8460
GGACGTATGA GTTTATAGTA AGCATCTGTC ACGCTCTGCT CGTTGACACG GTACTGAGTC	8520
GCTACATTCA TCATAACGAA CACATTGTCC TTGGTCTTAG TCTCAACCAC AATATCACTT	8580
TGCAACAAGC GCAACTGAAT CCGTGCTGCA ATCGAGTCAA TCCCAAAAGG CAAGCGAATA	8640
TGAATACCGC TATTAGCAAC CTTTTGGTAT TTCCCAAAGC GTTCAATAAT CGCCACCGAC	8700
TGCTGACGAA CCACATAAAC TGTACTCAGT GTGACTATCA CCAATAGGAG CACACAAACA	8760
ATCAGAAAAA TCATGAAAAA TATTGCCATA ATGGAACCTC CACAAGTATT TTTCTAGTAT	8820
TATAGCACAT TTAAAGAAGG CTGTGCCGTT TTTACTGCGA TTTTTCCTGA AATGTCAATA	8880
ATTAGAGGTG AATTGTCCTA TTGTCTGCTA ATCTCTTGCT AAAATAACTC TTTATAAAAG	8940
GCAATCGTTT CTTCTAAGGT TGGCATAAAT GGATTTCTTG GTGCGCAGGC ATCAATCAAG	9000
GCATTCTTAG AAAGGTATTC AAAGTCGAAA TCTTTTCTT CAATACCAAG TTCAGTCAGT	9060
TTCTTAGGAA TACCTACTGT CTCAGAAAGC TTCTCAATCT CAGCAATCGC ATAATCGGCA	9120
CATTCTTGAT CTGATTTACC TTCTACATGA AGTCCCAAGG CTTTGGCAAC ATTGCGGAAA	9180
GCTTCTGGTA CACGTTTAGC ATTTTCACGT TCTATAACTG GTAGCAACAT GGCACAGCAC	9240
ACGG	9244

(2) INFORMATION FOR SEQ ID NO: 69:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 8898 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double

562

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 69:

GATCTGAACT TTATCATCAT AACTTAATTT CATAATAAAA ACACCCCAA AGTTAGATTT	60
TTTCTGTCTA ACTTTTGGGG TGTAGTTCAG TCATTGGACT GACGTTTTTT TGTATGCTTA	120
TTTTGATTTG ATGTAGTTGA TACCATCTGC TTTTGGTGCG ACTGCTTTTC CAAAGAAGGC	180
TGCTAAGACA AGAATTGTCA AAACATAAGG TGCAATTTGA AGATAAACCG CTGGCACTCC	240
TTGTAGGAAC GGCAATTGAG AACCGATAAC AGCCAAACTT TGTGAAAGTC CAAAGAAGAG	300
ACTAGAAAGC ATAGCACCGA TTGGATTCCA TTTCCCAAAG ATCATCGCAG CAAGGGCGAT	360
AAATCCAGGT CCAACAATAG TTGTCACTGA GAAGTTAACT GAGATTGATT GCGCATAAAT	420
CGCTCCGCCA ATTCCACCTA GAAAACCTGA AATAATAACC CCTAAATATC TCATCTTGTA	480
GACGTTGATT CCAAGGTAT CCGCTGCTTG AGGATGTTCA CCGACAGAGC GGAGACGAAG	540
ACCAAATTGA GTCTTAAAGA GAATAAACCA AGCAAGGAAT GAGAAGGCAA TCGCCAGATA	600
ACCAAGTAGA CTAGTTGACT TGAAGAAGAT ATCACCAATC ACTGGGATAT TTGCCAAGAC	660
TGGGAAATCA AAGCGTCCAA AAGTTTGACT TAGGTTGTCG GTTTGTCCTT TGTTATAAAG	720
AACTTTAACT AAGAAAACAG CCAAGGCAGG CGCCATCAAG TTCAATACCG TACCGCTGAC	780
AACATGGTCT GCACGGAAAT GAACCGTCGC TGCTGCGTGG ATGATAGAGA AAACACTACC	840
AACCAATCCT GCTACAAGCA AGGATAGCCA TGGAGTTGCT GCTCCAAATT GTTCTGCAAA	900
TTCAAGGTTA AAGACAACCT CAGAAAAGGC ACCCATAACC ATAATTCCTT CAAGGCCAAC	960
GTTTACCACA CCACCACGTT CAGAGAAAAC ACCACCGATA CTTGTAAAGA TGAGAGGTGC	1020
TGAGTAAATC AGCATAGAAG ACACCAAGAG GGGGAGCAAG GTTATAATAG ACATCTTTAC	1080
TTACCTCCTT TAACTTGTTT TTTTCGGTTG ACAAAGCGTT CGATAAGGTA ATGAACACTG	1140
ACAAAGAAGA TAATAGACGC TGTTACAATG CTGACAAGCT CAGATGGTAC CTGCGCCGCA	1200
TTCATACCAG GAGCCCCAAC TTGGAGAACG CCAAATAGGA AGGCTGCAAA GAGTATACCA	1260
ATTGGTGAGT TGGCCGCAAG CAAACTAACC GCCATTCCGT TAAATCCGAT AGCTAATGAC	1320
GAACCTTGAA CATAGACGTT CTGGAAGGTT CCCAAACCTT CAACAGCTCC ACCAAGACCT	1380
GCCAAGGCAC CTGAAATAAT CATAGATAGG ATAATAGTCC GCTTGGCAGA AATACCAGCA	1440
TATTCTGAAG CATGTGGATT AAGACCAACT GCACGGATTT CAAAACCAAG AGTTGTTTTTC	1500
TTGAGCATGA ACCAAATAAC TGCAACGGCA ATGATGGCAA AGAAAATACC AATATTCATC	1560
CGTGAGTTAC CAGTCAACTC AGCCAACCAA GGTGTCTGAT AGGTTGCATT AGCCCCAACA	1620

563

CGAATGGTCG AATCTGTACT TTGCATGAAG TCTTTAGGGA AAGCATGGAT AAAGGCATTC	1680
CCTACATACA AGACAATGTA GTTCATCATG ATGGTTACAA TAACCTCTGA CGTCCCTAGA	1740
TAGGCCCTAA GAATACCTGG AATCGCTCCG ACAATCCCAC CAGCAATCAA GGCAATCACG	1800
ATGGTTGCTA GAATCATCAA GGGACGGGGC ATATCTGGAT GCGACAGGGC AAACCAACCA	1860
CTGAGAATCC AACCTGCCAA AGCCTGACCA GGAAGTCCGA CGTTAAAGAA ACCAGCTCGA	1920
CTGGCAACGG CAAAACCAAG ACCAATCAAG ACCAGAGGAC CCATAGCACG GAAGATTTCT	1980
CCAATCCCAC GCAGACTGCC AAAGGCTGTA TAGAACAATT CTTCGTAGCC CCAAATAGCA	2040
TCATAACCGA AGATCCACAT GACAATGGCT CCGAGTAAAA TTCCTAGGAA TACAGAAATC	2100
AAGGGAACCG AAATTTGTTG TAATTTTTTA GACATCACTC TTCTCCTTTC CCAAGTTTCC	2160
ACCAGCCATC AAGACACCAA GTTCTTGTTT ATTGGTTGTT TCTGGTGATA CAATACCTTG	2220
AATCTTACCA TCGTGGATAA CGGCAATACG GTCTGAGACG TTTAAAATCT CATCCAATTC	2280
AAAGCTGACA ACAAGGACAG CCTTGCCATT ATCACGCTCT TCAATCAAGC GTTTGTGGAT	2340
ATACTCAATG GCACCGACAT CCAACCCACG AGTTGGCTGG CTAACGATAA GGAGATCAGG	2400
ATCTCGATCA ATTTACAGAG CAATAATTGC TTTTGTGTA TTTCTCCTG AGAGTGCAGC	2460
TGCAGGAAC TATTCACTGG CAGCGCGAAC ATCAAACCTCT TCCATCAGCT TTTTAGCATA	2520
AGAAGTAATA TTTGAATAAT TCAAAATTCC ATTTTACTA TGTGGTTCTT TATAGTAGGT	2580
TTGAAGGGCA ATATTTTCAG ATATCATCAT TTCCAAAATC AAGCCATCAC GGTGACGGTC	2640
TTCTGGAACG TGCCCAACAC TTAGTTCTGT AATCTGACGT GGGTGCAAGC CTACAATTGA	2700
ATCTCCTTTT AGCTCAATGC TACCAGATTC AACCTTACGA AGACCTGTAA TGGCTTGAAT	2760
CAGTTCAGAC TGACCATTTT CATCAATCCC CGCAATACCA ACAATCTCTC CAGCACGAAC	2820
ATCCAAGGAC AGATTTTAA CAGCTGGAAC ACCACGGTTT TCATTGACCA CCAAATCTTT	2880
GATAGACAAA ACCACTTCTT TTGGTTTAGA GGCTTGCTTC TCTGTTTAA AGGAAACAGA	2940
ACGTCCTACC ATCATTTCCG CCAAATCAGC ATTGGTAGCC CCTGCAATTT CAACGGTTTC	3000
AATTGATTTT CCACGACGGA TAACTGTAAC ACGGTCAGAA ACTGCTCGAA TTTTCATCCAA	3060
TTTGTGGGTA ATCAAGATAA TTGATTTTCC TTCTTTGACA AGATTTTCA TAATAGCCAT	3120
CAACTCATCA ATTTCTGATG GAGTCAAAAC AGCCGTTGGT TCGTCAAAGA TAAGGATATC	3180
AGCCCCCGA TAAAGTGTTT TTAATAATTC TACACGTTGT TGGGCTCCAA CTGAGATATC	3240
TGCTACCTTG GCAGAAGGGT CAACAGCTAA GCCATAACGT TCAGAAAGAG CCTTGATTTT	3300
TTTGCTAGCT CCAGCGATAT CTAGCACACC ATTTTGTAGT AATTCACCTAC CTAAAATGAT	3360

564

GTTTTTCAGCC	ACTGTGAAGG	CTTCAACCAA	CATAAAGTGC	TGGTGAACCA	TCCCGATTCC	3420
CAAGCTAGCT	GCTTTAGATG	GGGAGTCGAG	ATTGACAACCT	TGACCGTTGA	CCGCGATTTC	3480
ACCACTAGTT	GGTTCAAGAA	GGCCTGCTAA	CATGTTTCATT	AGCGTGGACT	TACCAGCCCC	3540
ATTTTCTCCT	AAAAGTGCAT	GAATTTACAC	TTTTCGTAGG	TGCAAGTTGA	TTTTGTCTGT	3600
GGCAACAAAT	CCACCAAACA	CCTTGGTAAT	ATCACGCATC	TCAATGACAT	TTTCGTGTGC	3660
CATGTGCTCT	TCCTTTCAGA	GTCTTATTTT	ATTTCAATAA	AACTTGCTAG	TTTGTCTAGT	3720
AGCAAGCTTT	ACTTAGACAA	AATGACTTTG	TCTCAACTCT	TAAAAAAGCG	GCCCTTGGCC	3780
GCTTCCTAAG	AAATGACTTC	CATCCATTAT	TTTTCAGGAA	CTTTTACGCT	TCCATCAAGG	3840
ATTTTAGCTT	TTGCATCTTC	GACAGCTTTT	TTACCTTCTT	CTGAAAGGTT	TGTTACTGCC	3900
AAGTCAACCC	CTTTATCCCT	CAATGAGTAA	ACGATCACTT	GACCGCCAGG	GAATTCTCCT	3960
CTTTCTGCCT	TGTTAGAAAT	ATCTTTTACA	GTTGTACCAA	CTTGTTTCAA	AGTAGATACA	4020
AGAACAAAGT	TTGATTCTTT	GCCATCTTTA	GAAGTGTATT	TACCTTCTGC	TTCTTGGTCA	4080
CGATCAACAC	CGATAACCCA	AACTTTTTCA	TTTTCAGGAC	GGCTTTCGTT	GAGAGATTTT	4140
GCCTCTGCAA	AGACACCTGC	ACCTGTACCA	CCAGCTACTT	GGTAAACAAT	ATCTGCACCG	4200
GCTGCGTATT	GTGCGGCTGC	AATTGTTTTA	CCTTTAGCCG	CATCACCAAA	TGAACCAGCG	4260
TAGTCAACTT	GGACTTTGAT	AGATGGGTCT	ACTGACGCAA	CACCAGCCTT	GAATCCTGCT	4320
TCAAAACGAG	AGATAACTTC	AGATTTCGATA	CCACCTACAA	AACCAACTTG	TTTTGTCTTA	4380
GTTGTTTTTG	CTGCAGCCAC	ACCTGCAAGG	TAACCTGACT	CATTATCAGC	GAAAGTTACG	4440
CTCGCAACAT	TCTTTTGGTC	TTTAATCACA	TCATCAATCA	AGACATAGTT	CAAGTCAGTG	4500
TGTTCTTTTG	CTGCATCTTT	AACTGCATTA	TTAAGGGCAA	AACCAACACC	GAAGATTAGG	4560
TTGTAACTTC	CAGCCGCTTG	TTGCAAGTTG	TTAGCGTAGT	CAGCTTCACT	TGTTGATTGG	4620
AAGTAAGTGA	AACCGTTATC	TTTTGAAAGA	TTGTGTTCTT	TACCCCAAGC	CTGCAAACCT	4680
TCCCAAGCTG	ATTGGTTGAA	TGATTTGTCA	TCAACACCAC	CAGTATCAGT	GACGATTGCT	4740
GCTTTTGTCT	TCACATCAGA	AGATGAAGCT	GCGTTACGAG	AAGAGCGGTT	ACCACATGCA	4800
GCAAGTCCAA	CTGCTGCCAC	TGCAACTAGG	CCAAGACCTA	GCCATTGTTT	CTTGTTTCATT	4860
ACTGAACCTC	CTAAATAAGA	TGTGCAACGA	TGTTGCAAGT	ATGGATTGGT	TGGCCACAAG	4920
GACCGTGCCA	CTCAGAGAGC	GACTCAGACT	AGTTTAAGTC	TGTAAAAGAG	TATGGAAGTA	4980
ATTCCCCGAC	CGTCATCTCG	ACCGTCGATT	TATCTTTTGC	GACTAAGGTC	ACTTTTAGAT	5040
CTTGTTCAAA	AAATTCAGCC	ATCACTTGGC	GACAAGCACC	ACATGGCGAG	ATCGGTTTTT	5100
CAGTTTGACC	ATAGACAATC	AATTCTGAAA	ATTCTCTTTG	GCCTTCAGAT	ATAGCCTTAA	5160

565

AAATAGCTGT	TCTCTCACCG	CAATTGGTCA	AAGGATAGCT	AGCATTTTCA	ATATTCACCTC	5220
CCGTGTAAAC	ACTTCCGTCT	TTAGCTACTA	AAACTGCTCC	GATAGGAAAG	TGAGAATAGG	5280
GGACATAGGC	ATGTTTGCTG	GTTTCAATTG	CCAGTTCAAT	CAACTCAGTA	GTCGCCATCT	5340
GCCAATTCTC	CTTTTAAAAT	AGCTACCCCA	GCTGACGTTT	CGATACGGGT	CGCACCTGCT	5400
TCGACAAAGG	CAAGAGCATC	TGCATAAGAA	CGAGCTCCAC	CGGCGGCCTT	GACACCCATA	5460
TCAGATCCAA	CTGTTTCACG	CATTAATGTA	ACATCTGCTA	TCGTAGCACC	ACCAAGTTGAA	5520
AAGCCAGTAG	ATGTTTGTAC	AAAGTCAGCC	CCAGCTTTTT	GGGCCAATTG	GCAAACAACA	5580
ACTTTTTCTT	GGTCTGTCAG	AAGGCAAGCT	TCAATAATGA	CTTTCACTAA	CTTATCACCA	5640
CTTGCTTCCA	CTACTGCGCG	AATATCTGAC	TCAACCAAGG	CTAAATTACC	TGATTTGAGA	5700
GCTCCAACAT	TGATCACCAT	ATCAATCTCA	TCTGCACCAT	TTTGGATAGC	TTCTTTTGTC	5760
TCAAATGCTT	TCACGGCTGA	AGTTGTGCT	CCCAAAGGGA	AACCTACTAC	TGTGCAAACC	5820
TTAACATCTG	TGCCTTCAAG	TCCTTTTTTA	GCATGTTCAA	CCCAGGTCGG	ATTAACGCAA	5880
ACACTGGCAA	AGTCATACTC	TCTAGCCTCA	GACAACAAAC	TATCAATTTG	TTTTTTCTTT	5940
GCATCTTGTT	TTAAAAGCGT	ATGATCTATA	TATTTATTTA	ATTTCATTTT	GGTTTTCCCT	6000
CCATTTAGGA	GATGATTCTT	ACAATTTTAC	GGATTTTTTT	CACTTCATCA	CTTATTTTAA	6060
CACATTTTGT	GAAATCTGTA	ACTAGTTGAG	GTGGAATTTT	TTTATTTGTG	TATACTTTTG	6120
CAACAATTTT	ACCCTTTTGA	ACGGAGTCTC	CAATCTTCTT	TTCAAAAACA	ATTCCTGTTT	6180
CATAGTCCAA	GGCATCAGAC	TTAACTGCAC	GACCAGCACC	CAGCCTCATG	GCATAAAGAC	6240
CAAAGTCCAT	AGCTGGAAGA	GCTGAAATGA	CACCCGTTTC	CTGAGCAGGG	ATTTCCACCA	6300
CATGAGCTAC	ATTTACAGGA	CGATAGAGGT	CTTCCAAGTC	TCCACCTTGG	GCTTGCACCA	6360
TTTCCTCAAA	CTTAGCCAGT	GCTTGACCAT	TCTCAAGATG	TTGGTGAACT	TCTTCAACAG	6420
TTTTGTAAAC	ATTTGCCAAA	CCAAGCATAA	TTTGAGCCAA	TTCAAAAATA	AAGTGGGTAA	6480
TATCCTGACG	TCCTTGACCT	TGCAAAATCT	CCAATGCTTC	AAGGATTTCC	AGACGATTTT	6540
CAATCGCTCG	TCCCAAAGGC	TGGCTCATAT	CCGTAATCAC	TGCTACTGTC	TTCCGTCCAA	6600
CAACCTTACC	AAGATCTACC	ATAGTTTGAG	CCAATCAGC	CGCCTCATCA	ACCGTCTTCA	6660
TGAAGGCACC	CTCACCGACA	GTCACGTCTA	GCAAAATAGC	ATCCGCCCCC	GCCGCAATTT	6720
TCTTGCTCAT	CACCGAACTC	GCAATCAAAG	GAATCGTGTC	GACAGTTGCG	GTCACATCAC	6780
GAAGGGCATA	GAGAAGCTTA	TCTGCTTTGA	CCAGCTGGTC	TGATTGCCCA	ATGACAGATA	6840
CTCCAATATC	CTGAACCTGA	CGAATAAAAT	CCTCTTGACT	ACGTTCTACT	TGATAGCCCT	6900

566

TAATGGACTC	CAATTTATCA	ATTGTTCCGC	CTGTATGGCC	AAGACCACGA	CCACTCATTT	6960
TTGCTACAGG	CACACCGAAG	CTAGCAACAA	GAGGAGCTAA	AATCAAGGTT	ACCTTATCGC	7020
CGACACCACC	AGTAGAATGC	TTGTCAACTT	TCACACCATC	AATGGCTGAC	AGGTCAAAC	7080
CTTGCCCAGT	CTTAACCATA	TTCATCGTTA	AATCAGAGAT	TTCTCGAGTC	GTCATTCCTT	7140
TAAAATAAAC	AGCCATAGCA	AAGGCAGACA	TCTGATAATC	AGGAACAGTT	CCTGATACAT	7200
AGCCTTCTAT	CAGCCATTCA	ATTTCACTTG	AAGTCAGTTC	TTGACCGTCT	CGTTTTTTTT	7260
GGATTAAATC	AACTGCTCTC	ATTCTTTCAC	ACTTCTAAGG	ATATAGTATC	CCTTGTCTTT	7320
TTTAAGGATT	TCACAATTGC	CAAACACATC	TTCCATCTTA	GACTTGGCAC	TTGGAGCTCC	7380
TTGTTTTTTC	TGGATGACGA	TGGTCAAATC	TCCACCAATT	TCCAAGAAAT	CTTTACTTTT	7440
CTCGATGATT	TCATGAACGA	CTTGCTTGCC	CGCACGGATA	GGAGGATTGG	AAATGACATG	7500
GTCAAATCGC	CCTTGAACTC	TTGCATAAAT	ATTAGATTGA	AATATCGTCG	CTTTTGCAAT	7560
ATTTTTTTCA	GCATTTCTCT	GAGCTAAATC	CAGGGCACGA	GTGTTAATAT	CAACCATGGT	7620
CGCCTGAACT	CCGTAAACCT	TGACCAAGGA	CAAACCTAAT	GGACCATAAC	CACAGCCTAC	7680
ATCTAGGACT	GTCTCTCCTT	GGTTGACATC	CAGACACTTG	AGCAAGAGTT	GACTTCCAAA	7740
GTCAACCATT	TTCTTGCTAA	AAACACCCGC	ATCTGTCAAA	AAAGTCATTT	TTTCTCCCAA	7800
CAAGTCCACT	CTCAACTCAT	GAATGTCGTG	AGCAGCGTCA	GGATTTTCTG	CATAGTACAT	7860
TTTACTCATG	ACACTATTTT	ACCATAATTT	GACTCAAATT	GTAAATCGTT	TACAAATTGA	7920
TAATAAAACG	AAAAAGACCG	AAGAAAGCAA	GTCACGAAGC	CATTTTCTTC	AATCTCTTTC	7980
AACACTTATA	AATAATAAAC	CATTTAGAAC	TATAAATATC	ACAGTCCAGA	TAAAAACAAA	8040
AAGTTTATCA	TCTATAATCA	GGCAGATTAT	TATTTCTATT	GCTTAACCTT	AAAATACTTT	8100
ATTATCAACA	AAATTCCTAA	CAAAATGTTT	AGATAAAAGC	CCAAGTATA	CGTTTATGTC	8160
AGGATTTCCA	AACTTGTTCA	AAGTCGTATC	AAATCTTCTA	GTGACATGTG	GAAGAAATAA	8220
CCCTCTGTCG	CAATCCGTAG	GACTAAAAAG	CAATAACTAC	CCGCAGCAAT	CCATTTCTGC	8280
CATCGTTTTT	TAGTAAGAAA	GCAATTAAGA	ACGAACAAAT	AAAGACAGCT	GTTACAATAG	8340
CATGTTCCAT	CAAAAAAGTA	AAACCGTAAT	AGGTTTCCAC	AAAGCATCTA	CCATTATCTG	8400
CATTGGTTCC	TTTTATAAAA	GGTAAAGCAA	AACTTAAAT	AAAACAGAGT	TCCAATATGT	8460
AACGTTTTAA	GATTTTCATA	GTACACCTCC	TATAAGTTGT	GAATAAAAA	GCCCCCTTTA	8520
TAAGCTTATA	AATCAGTAGA	ATCTATCTCC	TATTTTCATCA	ATAAATTGAT	CACTTATACT	8580
ATATACCATT	GACTTACCAC	ATTCAAGAAA	CCGCTTTATT	TTTTTAGCTT	TTTATGGTAT	8640
GATAGACAAA	ATATCTAGGG	GAAAACAAAT	GACCAACGAA	TTTTTACATT	TTGAAAAAAT	8700

567

CAGCCGCCAG ACTTGGCAAT CTTTACATCG AAAGACAACA CCTCCTTTGA CAGAAGAAGA	8760
ATTGGAATCT ATCAAGAGTT TTAATGACCA AATCAGTCTC CAAGACGTTA CAGATATCTA	8820
TCTCCCCTTG GCTCATTTGA TTCAGATTTA CAAGCGAACT AAGGAAGATT TAGCCTTTTC	8880
AAAAGGAATT TTCCTCCA	8898

(2) INFORMATION FOR SEQ ID NO: 70:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 13188 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 70:

TATCTTAACG aGGATTGGGT TTATCGTCAG TCTTATTGCC CTAATTGTGG GAACAATCCC	60
TTAAATCATT TTGAAAATAA TCGGCCTGTA GCAGATTTTT ACTGTAATCA TTGTAGTGAG	120
GAGTTTGAAC TAAAGAGCAA AAAAGGAAAT TTTTCATCAA CAATCAATGA TGGTGCTTAT	180
GCAACGATGA TGAAGCGTGT GCAGGCAGAT AATAATCCTA ATTTCTTTTT TTAACTTAC	240
ACAAAAAATT TTGAGGTAAA TAACTTTCTT GTCCTTCCGA AGCAATTGTGT TACACCGAAA	300
TCGATTATTC AAAGAAAACC ACTTGCACCA ACTGCTAGAC GAGCAGGTTG GATTGGTTGT	360
AACATTGATT TATCACAAGT ACCTTCTAAA GGAAGGATAT TTCTTGTGCA AGATGGACAA	420
GTTAGAGATC CAGAAAAAGT TACAAAAGAA TTAAAGCAAG GTTTATTTTT AAGGAAGAGC	480
TCTCTGTCAT CAAGAGGTTG GACAATAGAA ATTCTAAATT GTATAGATAA GATAGAGGGT	540
TCAGAATTTA CCCTTGAAGA TATGTATCGT TTTGAAAGTG ACCTAAAAAA TATCTTTGTT	600
AAGAACAATC ATATCAAAGA AAAGATTAGG CAACAGCTTC AAATATTAAG AGACAAAGAA	660
ATAATAGAAT TTAAAGGTAG AGGAAAGTAT CGGAAATTAT GAAAACGAAA CAACTTGTTG	720
CATCAGAAGA GGTGTATGAT TTCTTAAAAG TCATCTGGCC TGATTATGAA ACTGAAAGCC	780
GTTACGATAA CCTAAGTTTA ATCGTCTGTA CCTTATCAGA TCCCGATTGT GTGAGATGGT	840
TATCTGAAAA TATGAAATTT GGTGACGAAA AACAAC TAGC TTTGATGAAG GAAAAATATG	900
GGTGGGAAGT AGGAGATAAA TTGCCAGAGT GGCTACATAG CTCCTATCAT AGATTATTGT	960
TAATAGGTGA ATTATTGGAA AGCAATCTAA AACTGAAAAA GTATACAGTA GAAATTACAG	1020
AACTTTTATC ACGTTTAGTA AGTATAGAGG CTGAAAATCC AGATGAAGCC GAACGACTTG	1080
TAAGAGAAAA GTATAAGAGT TGTGAAATTG TTCTTGATGC AGATGATTTT CAGGACTATG	1140

568

ACACTAGCAT	ATATGAATAG	GTAGATGTTT	TTATTTTGTG	AACAAAAAAG	AGGCTCGCAC	1200
CTCTTTTTCT	TATTTCTTTT	TATGATTAA	TACGGCATTG	AGGACAATAG	CGAGTAGGCT	1260
GGCTACGACG	ATTCCGTTTG	AGAAGAACAT	TTGGAAGGCT	GTCGGCATGC	TGACAAAGAG	1320
ATTACTGTTG	TTGAGACCGA	CACCTGCAGC	GATTGAAACA	GCTGCGATAA	GGAAGTTGTG	1380
TTCATTGTTA	GCAAAGTCAA	CACGGGCGAG	GATTGTCATC	CCTTGAATTG	ATACAAAACC	1440
AAACATTACC	AGCATGGCAC	CACCGAGGAC	GGAGCTTGGA	ATGATTTGGG	CAAGGGCGCC	1500
AAACTTAGGA	AGCAGTCCAA	GGAGAACCAG	GAAACCAGCT	GCGTAGTAGA	TTGGCAGGCG	1560
TTTTTTGATG	CCTGACAATT	TAACCAAACC	AACGTTTTGT	GAAAATCCGG	TGTAAGGGAA	1620
GGTGTTAAAG	ATTCTCCGA	GAAGTACGGC	CAAACCTTCT	GCGCGGTATC	CGTTGCGAAG	1680
GCGCGTGCTG	TCGATTGGAT	CCTTTGTGAT	ATCAGACAAG	GCCAGATAAA	CACCAGTTGA	1740
CTCAACCATA	GACACCGTTG	CGATGATACA	CATCATGACA	ATAGATGAGA	TTTCAAAGGT	1800
TGGCATCCCA	AAGTAGAGTG	GAGTTGGGAC	ATGGACAAGT	GGAGCTACCG	CAACAGGAGA	1860
GAAGTCCACC	AAGCCCATAG	TAGCAGCAAT	GGCAGTTCCA	ACAACCAGAC	CAATCAAAAT	1920
AGAGATAGAC	TTGATAAATC	CTTTGGTAAA	GATGTTGATC	AAGAGGATAA	TCAGAACAGT	1980
AATAGCTGCA	AGCAAGAGAC	TTTGACCAGT	TGGCTCTGGA	ACGTTATTTT	CCATATTTCC	2040
AATAGCGACA	GGGATCAAGG	TTAAACCAAT	CGTGGAATA	ACAGATCCTG	TTACGATAGA	2100
TGGGAAGAGA	TTGGCTACTT	TTGAGAAGAT	GCCTGAAACA	AGAACCACGT	AAATCCCAGA	2160
TGCGATAAGG	GCACCAAACA	TAGCGCCACT	ACCATGGCTT	TGCCCAATCA	TAATCAAGGG	2220
AGCGACCGAC	TGGAATGCAA	CTCCAAGAAC	GACTGGGAGT	CCAATCCCAA	AGTATTTGTT	2280
GAGTTGGAGT	TGGAGGAAGG	TTGCCACCCC	ACACATGAAG	ATATCTGTAG	AAATCAGGTA	2340
GGTCAACTGC	TCAGCTGAAT	AGCCAAGGGC	TGTCGCAATC	ATGATGGGAA	CCAGGATAGA	2400
TCCTGAGTAC	ATGGCTAGTA	AGTGCTGCAA	GCCAAGAACG	GCTGCTTGCG	AGTGTTTTTC	2460
TTGAGTTTGC	ATTAGAGATC	TGCCTCCTTA	AATACGACTT	GACCATTTTC	AAAACAATCC	2520
AAACGAGCAA	GTGATAGGAC	AGGGTAGCCT	GCTTTTTCAA	GCAAATCACG	ACCATCTTGG	2580
AAGGATTTCT	CAATCACGAT	ACCGATAGCT	TGGACTGTGG	CACCGGCCTG	TTCGATGATT	2640
TGAATCAAGC	CTTTAGCAGC	TTGGCCATTA	GCAAGGAAAT	CGTCGATAAT	CAAAACCTTG	2700
TCCTCTGGTG	AGAGGAATTT	TTCAGCGATA	GAAACGGTGC	TGGTCACCTG	CTTGGTAAAG	2760
GAGTAGACTT	GAGCAGTTAA	GATGCCTTCG	TTCATGGTGA	TGTTCTTAGC	TTTTTTGGCG	2820
AAAATCATGG	GAACGTTTAA	GGCTTCAGCT	GTAAAAACGG	CTGGGGCAAT	ACCCGACGCT	2880
TCAATGGTTA	CGACCTTGGT	AATGCCAGTA	GTAGCAAATT	TTTCCGCAAA	AACCTTACCA	2940

569

ATCTCTCGCA	TCAAGCTAAA	GTCAACTTGG	TGGGTAAAA	AGGAATCTAC	CTTGAGGATG	3000
TTATCACCCA	AGATATGCCC	ATCCTTGAGG	ATGCGCTCTT	CTAATAATTT	CATAAGACCT	3060
CCTAAAGTCT	AAAAGTTAAT	TTACTTGTTG	TTTAAATATT	TCTATAGTGA	TCCCTTTTGC	3120
TAATACTATA	TATTTGATAA	AACTATTACG	AGCGAAGCGA	GTCTTATCAA	ATATTTCCCG	3180
TTGTAGTGGT	ATCATAGACA	ATAATCTTGT	TATTGTCTAT	GACGGGATTT	TTGAGAGTAA	3240
AATAGTTCGG	GGAACATTTT	TAGCCTAAGC	CTAGAAATGA	AAGAGCTAGG	GGCTCAAAAA	3300
TTAGGGATGA	AATTCCTGG	ATTCCTGAAA	TTATTCACAG	GATAATTTCA	CCTCCCGTCC	3360
GCACTAATTA	AGGGAAATAT	TAAAAAAGA	CCTACTTAAT	CTCTAAGTAA	GTCCCCTAAA	3420
TAGACATGGC	AAAAACGGCC	ATATCTCACT	GCTGACTTAC	TTATTGTTAG	GTGTTCCGGC	3480
ACCTTGTAGA	AACGTCGTGC	CAATTCACGA	CATAACAAG	TAAAACGATA	TTCAATTTTA	3540
AATAGGCTTG	AGCCAATGTT	TTTATTTTAC	ACTAAATAAC	TTTAGAAATC	AACTATTTTG	3600
TTAGTGTTTT	GGTTTAAAA	ACGAACAAAA	AGAAGAGAGG	GTGAACAAAA	ACTCCATTGT	3660
AAGCTAACAG	TTATACTAAA	TGAAAATCAA	AGAGCAAAC	AGGAAGCTAT	CCACAACCTC	3720
AAAACACTGT	TTTGAGGTTG	TGGATAGAAT	TGACAGAGCC	AGTATCATAT	ACCTACGGTA	3780
AGGCGACGTT	GACGTGGCTT	GAAGAGATTT	TCGAAGAGTA	TTAGAAGATT	TTCCATCAT	3840
AAAAGGCATA	CTATCAAGCT	TTTAGACACC	TGACAATATG	CCTTTTTTCTA	ACTTTAAAGA	3900
CTTTTCCCAA	TTTTTATTAT	TCTACTCGCT	AAATCTTAAA	AAATAGCCAT	CTGGATCCAA	3960
AACTGCAAAT	TTATGAGGAT	AGATATAGGG	ATCACTGACA	CGAAACTTTC	TTTTGGTCAA	4020
GGGACGATAA	ATAGGATAGT	TTGCCTTCAT	CACTCTTTAA	TAGAGTTTTG	AAACATCCTT	4080
TATGCCAAAG	GAGAGATTGA	CTCCACGACC	AAAGGGATAG	GTCAGTTCAG	CTAGTTGATC	4140
CTTTGTTCCC	TCCTCTAACA	TTAGTTGACA	CTCTTCAAGA	GAAAGAGAAA	GTTTTCTTCT	4200
GGACGTTGGT	ATTCAATCCT	AAAACCCAGT	AAACCACAGT	AGAAGGACCG	GGACTGTTTCG	4260
ATATTCGATA	CAAGCAACTC	GGGAATGACC	GCATTGTAGT	CCATATAGAA	AATCCTTACA	4320
AGTCAATTTT	CAAGACAATC	GGTGTATGGT	CTTGCGGAGC	ACCTGAGTCA	ATCATATCAG	4380
ATTTAGTGAC	CTTGTCAGCG	ATACGGTTAC	TTGTGAGCCA	GTAGTCGATT	CTCCAGCCTG	4440
TATTGTTGAT	TTTAGAAGTT	TTGCTGCGTT	GTGCCCACCA	AGTGTAGCGT	TCAGGAACAT	4500
CGCCATGAAC	ATGGCGGAAG	GTGTCTGTAA	ATCCAGTTGC	CAAAAGGTTG	GTAAATCCAG	4560
CACGTTCCCT	GTCAGTAAAT	CCAGGTGAAC	GGCGGTTGCT	AGCAGGATTT	GCAAGGTCGA	4620
TTTCATTGTG	GGCTACGTTG	TAGTCACCGG	TCGCAAGGAC	TGGTTTTTCT	TTGTCTAGTT	4680

570

CAGCCAAATA	CTCAGCATAT	TTGGCATCCC	AGACTTGGCG	TTCTTCCAAG	CGTTTGAGAC	4740
CGTCACCAGC	GTTTGGAGTG	TAAACTTGGG	TTACGAAAAA	TGCATCAAAT	TCTAGAGTGA	4800
TGATACGACC	TTCCAAGTCC	ATGGTAGAAG	GGGCACCGAT	TTCTGGGAAG	CTGATAGTAG	4860
GTGTAAGTTC	TTTCTTATAA	AGGAACATGG	TTCCAGCATA	GCCTTTACGG	GCAGGCTCTT	4920
GGGAAGAGCG	CCACGTGTTT	TCGTAGCCTG	GGAAGAGTTC	TTCTAAAATT	TCCACGTGTT	4980
TCTTTGTAGG	TCCTTTGGCA	GAAAGCTTGG	TTTCTTGGAT	AGCAATGATA	TCAGCATTTT	5040
CAGCGACCAA	GGTTTGTAGG	ACTTCTTGGG	ACAATTTGGC	ACGAGCTGAG	TCACTAGTTA	5100
GGGCAGCGTT	TAGGGAATCA	ATATTCCATG	AGATAAGTTT	CATAAAGTTA	CCTTTTTTCAT	5160
TCAGATTATA	GATTTTATTA	TACCAAAAAA	AGATCTATTT	CCCCAACGTA	TGGTTTGAAA	5220
AATTACTCTC	TTTCGTTTAT	AATTAAGAAT	GATTTTATGA	AAGGGAGTGA	AAATACATGA	5280
AATTCTACTC	TTATGACTAT	GTAATCAGCC	AAATCGGTCA	GCAAAATGGT	ATCATGGTTG	5340
GCTTTGGGAT	TGTTCTATTA	GCTGTGACAG	TTTTTTTTGC	TTTCAAGGCA	TACCATAATA	5400
AAAAGGGAAG	CGAATTTTCGT	GAGTTGGTCA	TGATTTCAGA	TCTGGCCTTA	TTTAGCTCTG	5460
CTTTTGGTCA	GCATCACGAC	TTATCAAAAC	AATCAAGTTT	CTAACAATAA	ATTTCAAACCT	5520
TCACTTCATT	TCATCGAGGT	TGTTTCCAAA	GATTTGTGAG	TAGACAAGTC	AGAAGTCTAT	5580
GTTAATACTT	CCACAAACAC	AGATGGCGCA	CTTATCAAGG	TGGGAGATCG	CTATTATCGT	5640
GCCCTAAATG	GAAGTGAGCC	AGACAAGTAC	CTGTTAGAGA	AAGTCGAATT	GTATAAGACA	5700
GACGCAATTG	AACTGGTGGA	TGTGAACAAA	TGACACTTAA	TTATATCGAA	ATTTTAATCA	5760
AACTGGTCTT	GACTCTCAAA	TAGCTCAACA	ACAATGTTCA	CTTTGTGAAA	CGTTTGATTG	5820
ATGGTAAGCC	AACTCTCCTT	ATCAAAAATG	GGAATATTGA	CCCAGAAGCC	TGTCGTTTCAG	5880
TTGGTTTGTC	TGCATCGGAT	GTATCCCTCA	AACTTCGTAG	CCAAGGGATT	TTCCAGATGA	5940
AGCAAGTCAA	ACGAGCTGTG	CAAGAGCAAA	ATGGGCAACT	CATCGTTGTG	CAAATGGGAG	6000
ATGAAAATCC	TAAGTATCCA	GTTGTGACTG	ACGGTGTGAT	TCAAGTAGAT	GTCTTGGAAT	6060
CGATTGGTCG	TAGCGAAGAG	TGGTTGCTTG	ATAACCTCAG	TAAACAAGGG	CATGACAATG	6120
TAGCCAATAT	CTTTATTGCT	GAATATGACA	AGGGTGCTGT	TACAGTCGTA	ACTTATGAAT	6180
AAGAAAAACC	TGGGGTCTTG	TACTCTTCGA	AAATCTCTTC	AAACCGCGTC	AACGTCGCCT	6240
TGCCGTATGT	AGGTTACTGA	CTTCGTCAGT	TCTATCTACA	ACCTCAAAGC	AGTGCTTTGA	6300
GCAGCCTGCG	GCTAGTTTCC	TAGTTTGCTC	TTTGATTTTC	ATTGAGTATT	GGCCTCAGGT	6360
TTCCATTTGC	AATCAGAAAG	GGATTTTATG	TCCATTATTC	AAAAACTTTG	GTGGTTTTTC	6420
AAGTTAGAAA	AACGCCGTTA	TCTAGTCGGA	ATTGTGGCCC	TGATCTTGGT	TTCCGTCCTC	6480

571

AATCTCATTC CTCCTATGGT TATGGGGCGG GTCATTGATG CCATCACATC GGGGCAATTA	6540
ACCCAGCAGG ACCTCCTTCT TAGCCTATTT TACTTGCTAC TTGCAGCCTT TGGTATGTAC	6600
TATTTGCGCT ATGTGTGGCG TATGTATATC CTTGGGACCT CTTATTGCTT GGGACAGATC	6660
ATGCGGTCTC GCTTGTTTAA GCATTTTACA AAAATGTCGT CAGCCTTTTA TCAAACCTAT	6720
CGGACGGGTG ATCTGATGGC ACACGCAACC AATGATATCA ATGCCTTGAC TCGTTTAGCA	6780
GGTGGCGGTG TCATGTCTGC GGTGGATGCC TCTATCACGG CTCTGGTGAC TTTGTTGACC	6840
ATGCTCTTTA GCATCTCATG GCAGATGACT CTTGTTGCCA TTCTCCCCCT ACCTTTCATG	6900
GCCTATACGA CTAGTCGCCT AGGGAGAAAG ACTCATAAGG CCTTTGGCGA ATCCCAAGCT	6960
GCTTTTTCTG AACTCAATAA CAAGGTACAG GAGTCCGTAT CAGGTATCAA AGTGACCAAG	7020
TCTTTCGGTT ATCAGGCAGA CGAGTTGAAG TCTTTTCAGG CAGTCAATGA ATTAACCTTC	7080
CAAAAGAACC TGCAAACCAT GAAATATGAT AGTCTCTTTG ACCCTATGGT TCTCTTGTTT	7140
GTTGGTTCGT CCTATGTTTT AACGCTTTTG GTTGGCTCCT TGATGGTTCA GGAAGGGCAG	7200
ATTACAGTTG GGAATCTAGT CACCTTTATC AGCTATTTGG ATATGCTGGT CTGGCCTCTT	7260
CTGGCCATCG GTTTCCTCTT TAATACTACT CAGCGAGGGA AGGTTTCTTA CCAGCGGATT	7320
GAAAATCTTT TGTCTCAGGA ATCTCCTGTA CAAGACCCTG AGTTTCCTCT GGATGGTATT	7380
GAAAATGGGC GTTTGGAGTA TGCCATTGAC AGCTTTGCTT TTGAAAATGA GGAAACACTG	7440
ACGGATATTC ACTTTAGTTT GGCAAAAGGG CAAACACTGG GCTTGGTTGG GCAGACAGGC	7500
TCTGGGAAAA CGTCCTTAAT CAAGCTCCTC TTGCGTGAAT ACGATGTGGA TAAGGGTGCC	7560
ATTTATCTAA ACGGTCACGA TATTCGGGAC TATCGTCTGA CAGACCTTCG CAGTCTCATG	7620
GGCTATGTTT CTCAGGACCA GTTCTTTTTT GCGACTTCAA TCCTAGACAA TATCCGCTTT	7680
GGCAATCCTA ACTTGCCCCT TTCAGCGGTC GAGGAAGCTA CTAAGCTAGC CCGGGTTTAC	7740
CAAGATATTG TAGACATGCC TCAAGGATTT GATACGCTGA TTGGTGAAAA AGGAGTCACT	7800
CTTTCTGGTG GTCAAAAGCA ACGGTTGGCT ATGAGTCGGG CTATGATTTT AGACCCTGAT	7860
ATCTTGATTT TGGATGATTC CTTATCCGCC GTAGATGCCA AGACAGAGTA TGCGATTATC	7920
GACAACCTCA AGGAGATGCG AAAGGACAAG ACAACCATTA TCACTGCCCA TCGCCTCAGT	7980
GCTGTTGTCC ATGCAGATTT TATTTTAGTT CTACAAAATG GTCAAATTAT CGAACGAGGC	8040
ACGCACGAAG ACTTGCTAGC TTTGGATGGC TGGTATGCCC AAACCTACCA GTCTCAGCAG	8100
TTGGAAATGA AAGGAGAAGA AGATGCAGAA TAAACAAGAA CAATGGACTG TATTGAAGCG	8160
CTTGATGTCT TATCTCAAGC CTTATGGACT CCTGACCTTT TTGGCACTCA GTTTTCTCCT	8220

572

AGCGACGACG	GTCATTAAAA	GTGTCATACC	CCTCGTGGCT	TCCCAC'TTTA	TCGACCAGTA	8280
TCTCAGCAAT	CTTAACCAAC	TAGCCGTTAC	CGTTTTGCTG	GTCTACTATG	GTCTCTACAT	8340
CCTACAAACT	GTAGTTCAGT	ATGTCGGCAA	TCTTCTCTTT	GCGCGCGTGT	CTTACAGTAT	8400
TGTTAGGGAT	ATTCGTCGGG	ATGCCTTTGC	CAATATGGAG	AAACTGGGCA	TGTCTTACTT	8460
TGACAAGACG	CCAGCAGGTT	CTATCGTTTC	TCGTTTGACC	AACGATACCG	AGACGATTAG	8520
TGATATGTTT	TCTGGGATTT	TATCCAGCTT	TATCTCAGCA	GTTTTTATCT	TTCTGACAAC	8580
CCTTTATACC	ATGTTGGTGC	TGGATTTTCG	TTTGACGGCT	TTAGTCTTGC	TCTTTCTTCC	8640
TTTGATTTTC	CTTTTGGTCA	ATCTCTATCG	AAAAAAGTCA	GTGAAAATCA	TCGAGAAAAC	8700
CAGAAGTCTC	TTGTCAGATA	TCAATAGTAA	GCTGGCAGAG	AATATCGAGG	GAATCAGGAT	8760
TATTCAGGCC	TTTAATCAAG	AGAAGCGCCT	GCAGGCAGAA	TTTGATGAAA	TCAACCAAGA	8820
AACTTGGTC	TACGCCAACC	GTTCTGTAGC	CTTGATGCC	CTCTTTTGA	GACCTGCCAT	8880
GAGTTTGCTG	AACTTCTAG	GCTATGCAGT	CTTGATGGCC	TACTTTGGCT	ACCGTGGTTT	8940
TTCTATCGGG	ATAACGGTCG	GGACCATGTA	TGCCTTTATC	CAGTACATCA	ACCGCCTTTT	9000
TGACCCCTTG	ATTGAGGTGA	CGCAAACTT	TTCAACTCTG	CAAACGGCTA	TGGTTTCTGC	9060
AGGTCGTGTC	TTTGCCCTGA	TAGACGAGAG	GACCTATGAA	CCTCTTCAAG	AAAATGGGCA	9120
AGCCAAAGTC	CAAGAAGGCA	ATATCCGTTT	TGAACATGTG	TGTTTCTCAT	ATGACGGTAA	9180
ACATCCGATT	CTGGATGACA	TTTCTTTCTC	TGTAAATAAG	GGTGAAACCA	TTGCCTTTGT	9240
AGGTCATACA	GGTTCAGGGA	AATCGTCTAT	TATCAATGTC	CTCATGCGCT	TTTATGAATT	9300
CCAGTCAGGG	AGAGTTCTCT	TGGATGATGT	GGATATCAGG	GATTTCACTC	AAGAAGAGCT	9360
GAGAAAAAAC	ATCGGTTTGG	TCTTGCAGGA	ACCCTTCCTC	TATCATGGAA	CTATTAAGTC	9420
CAATATCGCC	ATGTACCAAG	AAACCAGTGA	TGAGCAGGTT	CAGGCTGCGG	CAGCCTTTGT	9480
GGATGCAGAT	TCCTTTATTC	AAGAACTTCC	TCAGGGGTAC	GACTCCCCTG	TTTCCGAGCG	9540
TGGTTCGAGC	TTCTCTACTG	GGCAACGCCA	GCTTCTTGCC	TTTGCTAGAA	CAGTCGCCAG	9600
CCAGCCTAAA	ATCCTGATTT	TGGATGAAGC	GACAGCCAAT	ATTGACTCTG	AAACAGAAAG	9660
CTTGGTTCAA	GCTTCTCTGG	CGAAGATGAG	ACAGGGCCGA	ACAACTATTG	CTATCGCTCA	9720
CCGCCTTTCT	ACTATTCAAG	ATGCCAACTG	CATCTATGTC	TTGGATAAGG	GACGCATTAT	9780
CGAGAGTGGA	ACCCATGAGG	AACTCTTGGC	TCTGGGAGGA	ACCTATCACA	AGATGTATAG	9840
TTTGCAGGCA	GGGGCCATGG	CCGATACTCT	TTGAAAATCT	CTTTAAACCA	TGTCAGCTTT	9900
ATCTGCAATC	TCAAAGCTGT	ACTTTGATTT	TCATTGAGTA	CTAGAAGGAA	ATCCTTCAAA	9960
TTACAGATTT	CTTTCACCGC	CTTTTCCATT	TTGTGGTATA	ATGAAAAATG	TTGACAAATA	10020

573

GTATAATAAA	AACAAAGGAG	AACAGCATGC	TGAAATGGGA	AGACTTGCCT	GTGGAAATGA	10080
AATCAAGCGA	GGTTGAGTCT	TACTACCAGC	TTGTCTCTAA	AAGGAAGGGT	TCGCTGATTT	10140
TCAAGCGTTG	CTTGGA CTGG	GTTTTGGCCT	TGGTCTTACT	GGTTCTGACC	TCTCCCATCT	10200
TTCTCATCTT	GAGCATTTGG	ATCAAGTTGG	ATAGCAAAGG	GCCAGTGATT	TACAAGCAAG	10260
AGCGTGTGAC	CCAGTACAAC	CGTCGGTTCA	AGATTTGGAA	GTTTCGTACC	ATGGTGACGG	10320
ATGCGGATAA	AAAAGGAAGT	CTGGTGACTT	CTGCTAACGA	TAGCCGCATT	ACCAAGGTTG	10380
GAAATTTTCAT	CCGACGTGTC	CGTTTGGACG	AACTGCCTCA	GTTGGTCAAT	GTCCTTAAAG	10440
GTGAGATGTC	CTTTGTCTGGT	ACACGACCTG	AAGTGCCACG	TTATACAGAG	CAGTATAGCC	10500
CTGAAATGAT	GGCAACCTTG	CTCTTGCAAG	CAGGGATTAC	CTCTCCAGCC	AGCATCAACT	10560
ACAAGGATGA	GGACACAATT	ATCAGTCAAA	TGACGGAGAA	AGGTCTGTCA	GTTGATCAGG	10620
CCTATGTGGA	GCATGTTCTT	CCTGAAAAGA	TGCGCTATAA	CCTCGCCTAT	CTCCGAGAGT	10680
TTAGTTTCTT	TGGGGACATC	AAAATCATGT	TTCAAACCGT	GTTTGAGGTA	CTAAAATAAA	10740
GTAGTCATAA	GAAAATGAGT	ACAGATAAAA	GGAGCAAATC	AATGCCAAAT	TACAATATTC	10800
CATTTTCACC	GCCTGATATC	ACAGAAGCAG	AAATTACTGA	AGTAGTGGAT	ACCCTGCGTT	10860
CTGGTTGGAT	CACAACAGGT	CCTAAAACAA	AAGAACTGGA	GCGCCGCTTG	TCTCTTTACA	10920
CACAGACACC	TAAGACTGTT	TGTCTCAACT	CTGCGACAGC	CGCTCTGGAG	TTGATTTTAC	10980
GCGTTTGGGA	AGTGGGACCT	GGTGATGAAG	TCATCGTTCC	AGCCATGACC	TATACGGCTT	11040
CATGTAGTGT	CATTACGCAC	GTGGGAGCAA	CCCCTGTCAT	GGTGGATATC	CAAGCAGATA	11100
CGTTTGAGAT	GGACTATGAC	CTGCTTGAGC	AAGCTATCAC	TGAGAAAAC	AAGGTGATTA	11160
TTCCAGTAGA	GCTCGCAGGG	ATTGTTTGCG	ATTATGACCG	TTTGTTCCAA	GTCGTGGAGA	11220
AAAAACGTGA	CTTCTTTACC	GCTTCAAGCA	AGTGGCAAAA	GGCCTTTAAC	CGTATTGTCA	11280
TTGTCTCTGA	TAGTGCCAC	GCTTTGGGAT	CTATTTATAA	AGGACAACCT	TCTGGTTCTA	11340
TCGCTGACTT	TACTTCCTTC	TCATTCCATG	CAGTTAAGAA	CTTTACAACG	GCAGAAGGTG	11400
GAAGTGCGAC	TTGGAAAGCC	AATCCAGTGA	TTGATGACGA	AGAGATGTAC	AAGGAATTCC	11460
AAATCCCTTC	CCTTCACGGG	CAAAC TAAGG	ATGCTCTTGC	CAAGATGCAA	CTGGGGTCAT	11520
GGGAATACGA	TATCGTTACA	CCAGCCTATA	AGTGCAACAT	GACCGATATC	ATGGCTTCAC	11580
TTGGTTTGGT	ACAATTGGAC	CGCTATCCAA	GTTTGTGTC	ACGCCGTAAG	GACATTGTGG	11640
ACCGCTATGA	TAGTGGTTTT	GCAGGTTCTC	GCATCCATCC	TTTGGCACAC	AAGACTGAAA	11700
CTGTCTGAATC	TTCACGCCAC	CTCTACATCA	CCCGTGTAGA	AGGAGCAAGC	CTAGAAGAAC	11760

574

GCAACCTCAT	CATCCAAGAA	TTGGCTAAAG	CAGGAATTGC	AAGTAATGTT	CACTACAAAC	11820
CGCTTCCTCT	CTTGACAGCC	TATAAGAATC	TTGGATTTGA	TATGACGAAC	TATCCTAAGG	11880
CCTATGCCTT	CTTTGAGAAT	GAAATTACCC	TCCCTCTTCA	TACTAAATTA	AGCGATGAAG	11940
AAGTAGACTA	TATCATTGAG	ACTTTCAAAA	CAGTTTCTGA	AAAAGTGCTA	ACTTTATCAA	12000
AAAAATGACA	AACTACAGTC	AAGCGAAAGT	GATCCTGCCC	CTAAAAAGTC	TAATTGAGTG	12060
TAAAAACTGT	TGTTTTCAAT	TGATAATAGT	TTACACCTGT	AGTTGAGGCC	CCTTTCCTCT	12120
CAGAGAGAGA	ATTTTTATAG	GATTTTCCTT	TCTTGTGGGA	GTCCCGTGGT	TTGAAATAAG	12180
ATGTGAGCAA	TTTAGTGTAG	CATTTAGAAT	CCTTACTAGA	CATCATTTAG	AAAATCTAGT	12240
GTCTTGTTCT	AGTTTTCAAT	TCACCCTATT	TTTTGAAAGA	CGTGAGTTTC	CATGAGTGAG	12300
ATTGTGGAAA	CTCGCGTCTT	TTTTTGTTTT	CAGAATATTG	TTCAAAATTT	TGTGCCTGTC	12360
TTTCATGTTT	TAGTCATTCT	TTTGCATGAT	AGAAATTTATA	GCATGTTGAT	ATTATAATAA	12420
TACAAATATT	CTATATGTTT	AGTGATGCTT	GCTATACATT	ATTAGATCTC	CTGCGAGACA	12480
ATCTATAAAA	CACTTGTCCTA	CGATTACCTA	TATGCCCTAT	TCCAGTATTT	TAGAAGCACT	12540
GCATCTATTT	TTATCGAGGT	TAAATCTAGC	TTTTATAGAA	GGTCTATTTA	AGAAATATAT	12600
TGTAGTGTTT	TAGTTTCAAT	CCGCCATATG	AGCGATATTC	AGGTAAATAT	CCCTGGCGAA	12660
TGCTTGATG	ACAAGGTATT	TGTTCTTTCA	TTTATAATTT	ACAACATATC	AACAAATTTA	12720
AATATAGTAA	ATGGGATATT	TTATATTCAA	GCTAAGAAAG	ATAGCATCAC	TTTTGAATGG	12780
AAGGCTAAAG	AGCAAACTAG	GAAGTTGGCC	ATAGATAGCT	CAAAACCCTG	CTTTGAGGTT	12840
GTAGATATAG	TAAAATGAAA	TGAGAATAGG	ACAAATTGAT	CGGGACAGTC	AAATCGATTT	12900
CTAACAATGT	TTTAGAAGTA	GAGGTGTACT	ATTTTAGTTT	CAGTCTACTA	TAGAACTGAC	12960
CAAGTCAGTA	ACCTAGACTT	AGGGCAAGGC	GGCACTGACC	TAGTTTGAAG	AGATTTCCTGA	13020
AGAGTATAAA	TTTTAATATT	TTCTTGTTGT	ATTCCTTGAC	AATTCAATTT	GGAAAATATA	13080
TGATAAAGAT	AATGACAGCG	GTGTCATTCT	ATCTATTTTA	AGAAAAGTAA	TAATCAATTG	13140
TTAAAAATAG	TAAAAAAATT	GGAGGTTCTG	ATGAAATATT	TTGTTCCG		13188

(2) INFORMATION FOR SEQ ID NO: 71:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 32768 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 71:

575

AACGAGTGCA TCAGTCTCAG CAAGCACCAG TCGGTCGGCC TCAGCAAGCA CCAGCGCGTC	60
TGAATCCGCA TCAACCAGTG CCTCAGCTTC AGCAAGTACC TCAGCATCTG AATCAGCATC	120
AACAAGTGCA TCGGCTTCAG CAAGCACAAG TGCTTCAGCC TCAGCAAGTA TCTCAGCGTC	180
TGAATCGGCA TCAACGAGTG CGTCCGCTTC AGCAAGTACT AGCGCCTCAG CATCAGCGTC	240
AACAAGTGCT TCGGCTTCAG CGTCAACGAG TCGTCTGAG TCAGCATCAA CGAGTACGTC	300
AGCCTCAGCA AGCACATCAG CTTCTGAATC TGCATCAACC AGTGCGTCAG CCTCAGCATC	360
GACAAGCGCC TCAGCTTCAG CAAGTACCAG TCGGTCAGCC TCAGCAAGTA CCAGTGCTTC	420
AGCCTCAGCG TCGACAAGTG CGTCGGCCTC AACCAGTGCA TCTGAATCGG CATCAACCAG	480
TGCGTCAGCC TCAGCAAGTA CTAGCGCCTC AGCCTCAGCA TCAACGAGTG CGTCCGCTTC	540
AGCAAGTACT AGTGATCAG CATCAGCATC AACGAGTGCA TCGGCTTCAG CAAGTACCAG	600
CGCCTCAGCT TCAGCAAGCA CCAGTGCGTC AGCCTCAGCA AGTACCAGCG CCTCAGCCTC	660
AGCAAGCACC AGTGCTCAG CTTAGCAAG TACCAGTGCG TCAGCCTCAG CGTCGACAAG	720
TGCGTCGGCT TCAGCAAGTA CCTCAGCGTC TGAATCAGCA TCAACGAGTG CATCAGCTTC	780
AGCATCAACA AGTGCTTCAG CTTAGCAAG TATCTCAGCG TCTGAATCGG CATCAACGAG	840
TGCGTCCGCT TCAGCAAGTA CTAGCGCCTC AGCATCAGCG TCAACAAGTG CTTGGCTTC	900
AGCGTCAACG AGTGCGTCTG AGTCAGCATC AACGAGTACG TCAGCCTCAG CAAGCACATC	960
AGCTTCTGAA TCTGCATCAA CCAGTGCGTC AGCCTCAGCA TCGACAAGCG CCTCAGCTTC	1020
AGCAAGTACC AGTGCGTCAG CCTCAGCAAG TACCAGTGCT TCAGCCTCAG CGTCGACAAG	1080
TGCGTCGGCC TCAACCAGTG CATCTGAATC GGCATCAACC AGTGCGTCAG CCTCAGCAAG	1140
TACTAGCGCC TCAGCCTCAG CATCAACGAG TGCGTCCGCT TCAGCAAGTA CTAGTGATC	1200
AGCATCAGCA TCAACGAGTG CATCGGCTTC AGCAAGTACC AGCGCCTCAG CTTAGCAAG	1260
CACCAGTGCG TCAGnCTCAG CAAGTACCAG CGCCTCAGCC TCAGCAAGCA CCAGTGCTTC	1320
AGCTTCAGCA AGTACCAGTG CGTCAGCCTC AGCGTCGACA AGTGCGTCGG CTTAGCAAG	1380
TACCTCAGCG TCTGAATCAG CATCAACGAG TGCATCAGCT TCAGCATCAA CAAGTGCTTC	1440
AGCTTCAGCA AGTACCAGTG CGTCGGCTTC AGCATCAACG AGTGCTTCAG TCTCAGCGTC	1500
AACCAGTGCC TCTGAATCAG CATCAACAAG TGCCTCGGCT TCAGCAAGCA CCAGTGCGTC	1560
GGCTTCAGCA AGTACTAGTG CATCGGCTTC AGCATCGACA AGTGCGTCTG AATCGGCATC	1620
AACGAGTGCT TCGGCTTCAG CATCAACGAG TGCGTCAGCC TCAGCAAGCA CATCAGCTTC	1680
TGAATCTGCA TCAACCAGTG CGTCCGCTTC AGCGTCAACC AGTGCGTCGG CTTAGCGTC	1740

576						
GACAAGTGCT	TCGGCTTCAG	CATCAACGAG	TGCGTCGGCC	TCAGCAAGCG	CAAGTACCTC	1800
AGCGTCAGct	TCCGCCTCAA	CCAGTGCGTC	GGCTTCAGCA	AGCACAAGTG	CGTCAGCCTC	1860
AGCAAGTATC	TCAGCGTCTG	AATCGGCATC	AACGAGTGCG	TCTGAGTCAG	CATCAACGAG	1920
TACGTCAGCC	TCAGCAAGCA	CATCAGCTTC	TGAATCTGCA	TCAACCAGTG	CGTCAGCCTC	1980
AGCATCGACA	AGCGCCTCAG	CTTCAGCAAG	TACCAGTGCT	TCAGCCTCAG	CGTCGACAAG	2040
TGCGTCGGCC	TCAACCAGTG	CATCTGAATC	GGCATCAACC	AGTGCGTCAG	CCTCAGCAAG	2100
TACTAGTGCA	TCAGCTTCAG	CATCAACGAG	TGCATCGGCT	TCAGCATCAA	CCAGTGCCTC	2160
GGCTTCAGCG	TCAACCAGTG	CGTCAGCTTC	AGCAAGTACC	AGTGCTTCAG	TCTCAGCATC	2220
AACAAGTGCT	TCAGCCTCAG	CATCGACAAG	TGCCTCGGCT	TCAGCAAGCA	CATCAGCATC	2280
TGAATCAGCG	TCAACCAGTG	CTTCGGCTTC	AGCAAGTACC	AGTGCTTCAG	CTTCAGCATC	2340
AACCAGCGCC	TCGGCCTCAG	CAAGCACCTC	AGCTTCTGAA	TCGGCCTCAA	CCAGCGCCTC	2400
GGCCTCAGCA	AGCACCTCAG	CTTCTGAATC	GGCCTCAACC	AGCGCCTCAG	CCTCAGCATC	2460
AACGAGTGCT	TCGGCTTCAG	CAAGCACAAG	CGCCTCGGGT	TCAGCATCAA	CGAGTACGTC	2520
AGCTTCAGCG	TCAACCAGTG	CTTCAGCCTC	AGCATCAACA	AGTGCGTCAG	CCTCAGCAAG	2580
TATCTCAGCG	TCTGAATCGG	CATCAACGAG	TGCGTCTGAG	TCAGCATCAA	CGAGTACGTC	2640
AGCCTCAGCA	AGCACCTCAG	CTTCTGAATC	GGCCTCAACC	AGTGCGTCAG	CCTCAGCATC	2700
GACAAGCGCC	TCAGCTTCAG	CAAGTACCAG	TGCTTCAGCC	TCAGCGTCGA	CAAGTGCGTC	2760
GGCCTCAACC	AGTGCACTCTG	AATCGGCATC	AACCAGTGCG	TCAGCCTCAG	CAAGTACTAG	2820
TGCATCGGCT	TCAGCATCAA	CCAGTGCCTC	GGCTTCAGCG	TCAACCAGTG	CGTCAGCTTC	2880
AGCAAGTACC	AGTGCTTCAG	TCTCAGCATC	AACAAGTGCT	TCAGCCTCAG	CATCGACAAG	2940
TGCCTCGGCT	TCAGCAAGCA	CATCAGCATC	TGAATCAGCG	TCGACAAGCG	CCTCAGCTTC	3000
AGCAAGTACC	AGTGCGTCAG	CCTCAGCGTC	GACAAGTGCG	TCAGCCTCAG	CAAGTACTAG	3060
TGCATCAGCT	TCAGCATCAA	CGAGTGCAATC	GGCTTCGGCG	TCAACCAGTG	CATCAGAGTC	3120
AGCAAGTACC	AGTGCGTCag	CTTCCGCATC	AACAAGTGCC	TCGGCTTCAG	CAAGCACCAG	3180
TGCGTCGGCT	TCAGCAAGTA	CTAGCGCCTC	AGCCTCAGCC	TCAACCAGTG	CGTCAGCCTC	3240
AGCAAGTATC	TCAGCGTCTG	AATCGGCATC	AACGAGTGCG	TCCGCTTCAG	CAAGTACTAG	3300
CGCCTCAGCC	TCAGCGTCAA	CAAGTGCAATC	GGCTTCAGCG	TCAACGAGTG	CGTCTGAATC	3360
GGCATCAACG	AGTGCGTCCG	CTTCAGCAAG	TACTAGCGCC	TCAGCCTCAG	CGTCAACAAG	3420
TGCATCGGCT	TCAGCATCAA	CGAGTGCGTC	CGCTTCAGCA	AGTACTAGCG	CCTCAGCCTC	3480
AGCGTCAACA	AGTGCAATCGG	CTTCAGCGTC	AACGAGTGCG	TCTGAGTCAG	CATCAACGAG	3540

577

TGCGTCAGCC	TCAGCAAGCA	CATCAGCTTC	TGAATCTGCA	TCAACCAGTG	CGTCAGCCTC	3600
AGCATCGACA	AGCGCCTCAG	CTTCAGCAAG	TACCAGTGCG	TCAGCCTCAG	CGTCGACAAG	3660
TGCGTCGGCT	TCAGCAAGTA	CCAGTGCGTC	AGCCTCAGCA	AGTACCAGTG	CGTCAGCCTC	3720
AGCGTCGACA	AGTGCGTCGG	CCTCAACCAG	TGCATCTGAA	TCGGCATCAA	CCAGTGCGTC	3780
AGCCTCAGCA	AGTACTAGTG	CATCAGCTTC	AGCATCAACG	AGTGCAATCG	CTTCAGCATC	3840
AACCAGTGCA	TCAGAGTCAG	CAAGTACCAG	TGCGTCAGCT	TCCGCATCAA	CAAGTGCTTC	3900
GGCTTCAGCA	AGTACTAGCG	CCTCAGCCTC	AGCGTCAACA	AGTGCTTCAG	CTTCCGCGTC	3960
AACCAGCGCC	TCGGCCTCAG	CAAGTATCTC	AGCGTCTGAA	TCGGCATCAA	CAAGTGCTTC	4020
GGCTTCAGCA	TCAACGAGTG	CATCAGTCTC	AGCAAGCACC	AGTGCGTCGG	CCTCAGCAAG	4080
CACCAGCGCG	TCTGAATCCG	CATCAACCAG	TGCCTCAGCT	TCAGCAAGTA	CCTCAGCATC	4140
TGAATCAGCA	TCAACAAGTG	CCTCGGCTTC	AGCAAGCACA	AGTGCTTCAG	CCTCAGCAAG	4200
TATCTCAGCG	TCTGAATCGG	CATCAACGAG	TGCGTCCGCT	TCAGCAAGTA	CTAGCGCCTC	4260
AGCATCAGCG	TCAACAAGTG	CTTCGGCTTC	AGCGTCAACG	AGTGCGTCTG	AGTCAGCATC	4320
AACGAGTACG	TCAGCCTCAG	CAAGCACATC	AGCTTCTGAA	TCTGCATCAA	CCAGTGCGTC	4380
AGCCTCAGCA	TCGACAAGCG	CCTCAGCTTC	AGCAAGTACC	AGTGCGTCAG	CCTCAGCAAG	4440
TACCAGTGCT	TCAGCCTCAG	CGTCGACAAG	TGCGTCGGCC	TCAACCAGTG	CATCTGAATC	4500
GGCATCAACC	AGTGCGTCAG	CCTCAGCAAG	TACTAGCGCC	TCAGCCTCAG	CATCAACGAG	4560
TGCGTCCGCT	TCAGCAAGTA	CTAGTGATC	AGCTTCAGCA	AGTACTAGCG	CCTCAGCCTC	4620
AGCGTCGACA	AGCGCCTCAG	CTTCAGCAAG	TACCAGTGCG	TCAGCCTCAG	CGTCGACAAG	4680
TGCGTCGGCT	TCAGCAAGTA	CCTCAGCGTC	TGAATCAGCA	TCAACAAGTG	CGTCGGCTTC	4740
AGCATCAACG	AGTGCAATCAG	CTTCAGCATC	AACAAGTGCT	TCAGCTTCAG	CAAGTACCAG	4800
TGCGTCGGCT	TCAGCATCAA	CGAGTGCTTC	AGTCTCAGCG	TCAACCAGTG	CCTCTGAATC	4860
CGCATCAACA	AGTGCTCGG	CTTCAGCAAG	CACCAGTGCT	TCGGCTTCAG	CGTCAACGAG	4920
TGCGTCTGAG	TCAGCATCAA	CGAGTGCGTC	AGCCTCAGCA	AGCACATCAG	CTTCTGAATC	4980
TGCATCAACC	AGTGCGTCAG	CTTCCGCATC	AACAAGCGCC	TCGGCCTCAG	CAAGTACAAG	5040
TGCTTCAGCC	TCAGCATCAA	CCAGTGATC	AGCTTCAGCC	TCAACAAGTG	CTTCAGCCTC	5100
AGCGTCAACC	AGTGCTCGG	CTTCAGCAAG	TACCAGTGCG	TCAGCTTCAG	CAAGCACAAG	5160
TGCGTCAGCT	TCAGCATCAA	CCAGTGCTTC	GGCTTCGGCA	TCAACAAGTG	CCTCAGCATC	5220
AGCATCAACG	AGTGCGTCAG	CCTCAGCAAG	TACTAGTGCA	TCAGCATCAG	CATCAACCAG	5280

578

TGCATCAGCC	TCAGCAAGTA	TCTCAGCGTC	TGAATCGGCA	TCAACGAGTG	CATCAGCATC	5340
AGCATCAACG	AGTGCATCGG	CTTCAGCGTC	AACCAGTGCA	TCAGTCTCAG	CAAGCACCAG	5400
TGCGTCGGCT	TCAGCATCAA	CGAGTGCCTC	AGCCTCAGCA	AGTATCTCAG	CGTCTGAATC	5460
GGCATCAACG	AGTGCCTCAG	CCTCAGCAAG	TACTAGTGCA	TCGGCTTCAG	CAAGCACCAG	5520
TGCGTCGGCT	TCAGCATCAA	CCAGTGCCTC	AGCCTCAGCA	AGTATCTCAG	CGTCTGAATC	5580
GGCATCAACG	AGTGCCTCAG	CCTCAGCAAG	TACTAGTGCA	TCAGCmTCAG	CATCAACGAG	5640
TGCATCGGCT	TCAGCAAGTA	CCAGCGCCTC	AGCTTCAGCA	AGCACCAGTG	CGTCAGCCTC	5700
AGCAAGTACC	AGCGCCTCAG	CCTCAGCAAG	CACCAGTGCC	TCAGCTTCAG	CAAGTACCAG	5760
TGCGTCAGcT	CAGCATCAAC	AAGTGCTTCA	GCTTCGGCCT	CAACAAGTGC	GTCAGCTTCA	5820
GCATCAACGA	GTGCGTCGGC	TTCAGCAAGC	ACCAGTGCC	CGGCCTCAGC	AAGCACCAGT	5880
GCTTCAGCTT	CAGCATCAAC	AAGTGCGTCA	GCTTCAGCAA	GTACATCAGT	TTCAAATTCA	5940
GCAAACCATT	CGAACTCACA	AGTTGGAAAT	ACTTCTGGAT	CGACAGGTAA	ATCCCAAAAA	6000
GAATTGCCTA	ATACAGGTAC	TGAGTCGTCA	ATTGGATCTG	TGTTACTTGG	AGTTCTAGCA	6060
GCTGTTACAG	GTATTGGATT	GGTTGCGAAA	CGCCGTAAAC	GTGATGAAGA	AGAGTAAGAC	6120
AACCTGTAAA	GTTAGGCTAA	ACTAACTCGC	GCACATAAAT	CAAGGAGAAA	ATTGCTAGTG	6180
GATGATAAAA	TAACAGTCAT	TGTACCAGTA	TACAATGTGG	AAAACATCT	GAGGAAGTGC	6240
CTAGATAGTA	TTATTACTCA	AACATATAAA	AATATTGAGA	TTGTTGTCGT	TAATGATGGT	6300
TCTACGGATG	CTTCAGGTGA	AATTTGTAAA	GAATTTTCAG	AAATGGATCA	CCGAATTCTC	6360
TATATAGAAC	AAGAAAATGC	TGGTCTTTCT	GCCGCACGAA	ACACCGGTCT	GAATAATATG	6420
TCCGGAAATT	ATGTGACCTT	TGTGGACTCG	GATGATTGGA	TTGAGCAAGA	TTATGTAGAA	6480
ACTCTATATA	AAAAAATAGT	AGAGTATCAG	GCTGATATTG	CAGTTGGTAA	TTATTATTCT	6540
TTCAACGAAA	GTGAAGGAAT	GTTCTACTTT	CATATATTGG	GAGACTCCTA	TTATGAGAAA	6600
GTATATGATA	ATGTTTCTAT	CTTTGAGAAC	TTGTATGAAA	CTCAAGAAAT	GAAGAGTTTT	6660
GCTTTGATAT	CTGCTTGGGG	TAAACTCTAT	AAGGCAAGAT	TGTTTGAGCA	GTTGCGCTTT	6720
GACATAGGTA	AATTAGGAGA	AGATGGTTAC	CTCAATCAAA	AGGTATATTT	ATTATCAGAA	6780
AAGGTAATTT	ATTTAAATAA	AAGTCTTTAT	GCTTATCGGA	TTAGAAAAGG	TAGTTTATCA	6840
AGAGTTTGGA	CAGAAAAGTG	GATGCACGCT	TTAGTTGATG	CTATGTCTGA	ACGTATTACG	6900
CTACTAGCTA	ATATGGGTTA	TCCTCTAGAG	AAACACTTGG	CAGTTTATCG	TCAGATGTTG	6960
GAAGTCAGTC	TCGCCAACGG	TCAAGCTAGT	GGTTTATCTG	ACACAGCAAC	GTATAAAGAG	7020
TTTGAAATGA	AACAAAGGCT	TTTAAATCAG	CTATCGAGAC	AAGAGGAAAG	TGAAAAGAAA	7080

579

GCCATTGTCC	TCGCAGCAAA	CTATGGCTAT	GTAGACCAAG	TTTTAACGAC	AATCAAGTCT	7140
ATTTGTTATC	ATAATCGTTC	GATTCGTTTT	TATCTGATTC	ATAGCGATTT	TCCAAATGAA	7200
TGGATTAAGC	AATTAAATAA	GCGCTTAGAG	AAGTTTGACT	CAGAAATTAT	TAATTGTCGG	7260
GTAACCTTCTG	AGCAAATTTT	ATGTTATAAA	TCGGATATTA	GTTACACAGT	CTTTTTACGC	7320
TATTTCATAG	CTGATTTTCGT	GCAAGAAGAC	AAGGCCCTCT	ACTTGGACTG	TGATCTAGTT	7380
GTAACGAAAA	ATCTGGATGA	CTTGTTTGCT	ACAGACTTAC	AAGATTATCC	TTTGGCTGCT	7440
GTTAGAGATT	TTGGGGGCAG	AGCTTATTTT	GGTCAAGAAA	TCTTTAATGC	CGGTGTTCTC	7500
TTGGTAAACA	ATGCTTTTTG	GAAAAAGAG	AATATGACCC	AAAAATTAAT	TGATGTAACC	7560
AATGAATGGC	ATGATAAGGT	GGATCAGGCA	GATCAGAGCA	TCTTGAATAT	GCTTTTTGAA	7620
CATAAATGGT	TGGAATTGGA	CTTTGATTAT	AATCATATTG	TCATTCATAA	ACAGTTTGCT	7680
GATTATCAAT	TGCCTGAGGG	TCAGGATTAT	CCTGCTATTA	TTCATATCT	TTCTCATCGG	7740
AAACCGTGA	AAGATTTGGC	GGCCCAAACC	TATCGTGAAG	TTTGGTGGTA	CTATCATGGG	7800
CTTGAATGGA	CAGAATTGGG	ACAAAACCAT	CATTTACATC	CATTACAAAG	ATCTCACATC	7860
TATCCAATAA	AGGAACCTTT	CACTTGTCTA	ATCTATACTG	CCTCAGACCA	TATTGAACAA	7920
ATTGAGACAT	TGGTTCAATC	CTTGCCTGAT	ATTCAGTTTA	AGATAGCAGC	TAGAGTAATA	7980
GTTAGTGATC	GATTGGCTCA	GATGACAATT	TATCCAAACG	TGACTATATT	TAACGGAATT	8040
CACTATTTGG	TAGATGTCGA	TAATGAATTG	GTAGAAACCA	GTCAAGTACT	TTTAGATATT	8100
AATCATGGCG	AAAAGACAGA	AGAAATTCTC	GATCAATTTG	CTAATCTTGG	CAAGCCTATC	8160
TTATCCTTTG	AAAATACTAA	AACCTATGAA	GTAGGTCAGG	AGGCATATGC	TGTTGACCAA	8220
GTTCAAGCAA	TGATTGAAAA	ATTGAGAGAA	ATAAGCAAAT	GAAGAAAAAT	CATTTAGTAG	8280
GAGATGCTCT	GATTTTGACG	GTTAGTGATC	AGATTGAAGA	GTTGGATTAT	TTTTTATAAA	8340
ATTTCTCCGT	TCATCATATA	TGAAAGTTGT	TCAAACATCA	GAGTGCTTTA	TAAAATATAA	8400
ATAGACCTAA	AGATATTTAA	TATGAACTGC	ACCCCAAAAG	TTAGACAGAA	AAAATCTAAC	8460
TTTTTGGSgt	CAGTACAATA	TTAGGGTGTG	ATTAATTATC	TTTTTAGGTG	AAAATGATTC	8520
TATATTATAG	CTGTTTGATA	CGAAATTTAT	TATAAGGAAA	TTATGTTAAT	GAATACAAAA	8580
TCTATAGTTT	TTAATGCAGA	TAATGATTAT	GTAGATAAAT	TAGAACTGC	AATTAAATCT	8640
ATTTGTTGTT	ATAATAATTG	TTTAAAATTT	TATGTATTTA	ATGATGATAT	TGCGTCAGAG	8700
TGGTTTTTTGA	TGATGAATAA	GCGATTGAAG	ACTATACAAT	CTGAAATCGT	TAATGTAAAG	8760
ATTGTAGATC	ATGTTCTTAA	AAAGTTTCAT	TTACCGTTAA	AGAATTTAAG	TTATGCCACT	8820

580

TTCTTTCGTT	ATTTTATACC	TAATTTTGTC	AAAGAAAGTC	GTGCTTTATA	CCTAGATTCT	8880
GACATCATTG	TTACAGGAAG	TTTAGACTAT	TTATTTGATA	TAGAACTAGA	TGGTTATGCC	8940
TTGGCAGCAG	TAGAAGATTC	TTTTGGTGAT	GTTCCCTTCTA	CCAATTTTAA	CTCCGGAATG	9000
TTATTAGTTA	ATGTAGATAC	TTGGAGAGAT	GAAGATGCTT	GTTTCGAACT	GTTAGAACTG	9060
ACCAATCAAT	ATCATGAAAC	AGCATATGGA	GATCAAGGAA	TTTTAAATAT	GTTATTCCAT	9120
GATAGATGGA	AAAGATTAGA	CCGAAATTTT	AATTTTATGG	TGGGGATGGA	TAGCGTCGCA	9180
CACATAGAAG	GAAATCATAA	ATGGTATGAG	ATTTCTGAGT	TGAAAAATGG	AGATTTACCT	9240
AGTGTTATAC	ATTATACTGG	GGTAAAACCT	TGGGAAATAA	TTTCCAATAA	TCGCTTTAGA	9300
GAAGTTTGGT	GGTTTTATAA	TCTGTTAGAA	TGGTCTGATA	TTTTATTGAG	AAAAGACATT	9360
ATTAGTCGTA	GTTTCGAAGA	ACTTGTATAC	AGTCCTAAAG	CTCATACAGC	AATTTTTTACA	9420
GCTAGTTGTG	AGATGGAGCA	TGTAGAATAT	TTGATAGAAA	ATTTACCAGA	GGTACATTTT	9480
TCTATACTAG	CACATACATA	TTTTGCGTCT	AGTGTCGTTG	CTTTATTAAG	ATATAGCAAT	9540
GTTACGATTT	ATCCTTGTTT	TTCTCCATTT	GATTATCGAA	AAATTTTGGA	TAATTTAGAT	9600
TTTTATTTAG	ATATTAATCA	TTATAAAGAA	GTGGATAATA	TTGTATCCGT	TGTTCAACAA	9660
CTATCTAAAC	CAATTTTTAC	CTTTGAAAAT	ACTAGTCATG	ATATAGGCAA	TCAAAC TAAT	9720
ATATTTTCTT	CAACCGAACC	AAACAAAATG	GTAGAGGCTA	TTAGACAATT	TATAGGAGAA	9780
TAAGTTTATG	GCAGACGAAC	TAATTAGTAT	TGTAGTTCCA	ATCTACAACG	TTGAGAATTA	9840
TTTGCGAATG	TGTTTGGATA	GCATTCAGAA	TCAGACGTAT	CAAAATTTTG	AGTGTTTATT	9900
AATCAATGAT	GGCTCTCCAG	ATCATTCATC	CAAAATATGT	GAAGAATTTG	TAGAGAAAGA	9960
TTCTCGTTTC	AAATATTTTG	AGAAAGCAAA	CGGCGGTCTT	TCATCAGCTC	GTAACCTAGG	10020
TATTGAATGT	TCGGGGGGGG	GCGTACATTA	CTTTTGTAGA	CTCTGATGAT	TGGTTGGAAC	10080
ATGATGCTTT	AGACCGATTA	TATGGTGCTT	TGAAAAAGGA	AAACGCAGAT	ATTAGTATCG	10140
GGCGTTATAA	TTCTTATGAT	GAAACACGCT	ATGTGTATAT	GACTTATGTT	ACGGATCCAG	10200
ATGATTCTCT	AGAAGTGATA	GAAGGTAAAG	CAATTATGGA	TAGGGAAGGT	GTCGAAGAAG	10260
TCAGAAATGG	GAAGTGGACT	GTAGCTGTCT	TGAAGTTATT	CAAGAGAGAG	TTACTACAAG	10320
ATTTACCAT	TCCTATAGGA	AAAATTGCAG	AGGATACTTA	CTGGACATGG	AAGGTACTTC	10380
TAAGAGCTTC	GAGGATAGTC	TATTTGAATC	GTTGTGTTTA	CTGGTACCGT	GTTGGTTTAT	10440
CTGATACTTT	ATCGAATACA	TGGAGTGAAA	AGCGTATGTA	TGATGAAATT	GGGGCTAGGG	10500
AAGAAAAGAT	AGCTATTTTA	GCAAGTTCAG	ACTATGACTT	GACCAATCAT	ATTTTGATTT	10560
ATAAAAATAG	ATTACAAAGA	GTGATAGCAA	AATTAGAAGA	ACAAAATATG	CAGTTCACAG	10620

581

AGATTTACAG	AAGAATGATG	GAAAAATTGT	CTTTACTTCC	GTAGATAGTA	ATAAAAAATG	10680
AGATAGCGTA	ATATGAAACT	ACATTTAACA	AATTTATACG	GCATGGCTGG	TGATAGTACG	10740
GTTATCTTAG	CTCAAAATGC	TGTTCAAAAG	ATAGCTAGTC	AACTGGGATT	TAGAGAGGTT	10800
GGTATTTATT	TTTACAACAT	TGCTTCAGAT	AGTCCTTCTG	AAATGAATAA	GCGTCTGGAT	10860
GGTATTATGG	CCAGTATCTC	TATTGGGGAT	ATTTTAGTCT	TTCAGTCTCC	AACCTGGAAT	10920
GGTTTTGAAT	TTGATCGTCT	CTTGTTTGAT	AAGCTAAAGG	ATATGCAGGT	GAAAATTATT	10980
TGCTTTATCC	ATGATGTTGT	TCCCCTCATG	TTTGATAGTA	ACTATTATCT	CATGAAAGAT	11040
TATCTGTATA	TGTATAATCT	ATCAGATGTT	TTGATAGTGC	CGTCAGAGAG	AATGAAAACA	11100
CGCCTGATGG	AAGAAGGATT	GACGACTAAG	AAGATTCTTG	TTCAAGGGAT	GTGGGATCAT	11160
CCTCATGATT	TATCCTTATA	CACCCCTGCT	TTTAAAAAAG	AACTTTTTTTT	TGCTGGAAGT	11220
TTAGAGCGTT	TTCCAGACTT	ACAAAATTGG	TCTCAAGATA	CGCCTTTGAG	AGTATTTTCA	11280
AATAAAGGGG	AAGCTAGTTC	TAGTGCTAGA	AGTCTCAGCA	TCGAAGGATG	GAAAAAAGAT	11340
GAGGAATTGT	TGCTAGAATT	ATCAAAGGGT	GGATTTGGCC	TTGTCTGGGG	AACCcATCAA	11400
AATGAGGGAG	AAAGTAACCA	ATACTATACC	TTGAATATAT	CTCATAAGGT	GAGTACCTAT	11460
CTAACAGCGG	GCATTCCAGT	CATTGTACCA	AGTAGCTTGT	CAACTGCTAA	ATTTATAGTA	11520
GATCAAGGCT	TGGGCTTTAT	GGCGGATAGT	CTGGAAGAGG	TTCATGAGAT	AGTTGATAAA	11580
ATGAATCTAC	AAGAATATCA	AGAAATGACG	AATCGTATCA	AGACCTTTAG	CTATTTGTTA	11640
AAAGAGGGCT	ATTTCACTAA	AAAGTTATTG	GTAGATGCAA	TCTATCACTT	GGGAATTGAT	11700
TAAGGGAATG	AAATGAACAA	AACAATTGTA	CTAGCAGGGG	ATCGCAATTA	CACCAGGCAG	11760
TTAGAAACAA	CGATAAAATC	TATTTTATAC	CACAATCGAG	ATGTTAAGAT	TTATATTTTG	11820
AATCAAGATA	TCATGCCAGA	TTGGTTTCGC	AAACCACGAA	AAATAGCTCG	CATGTTAGGT	11880
AGTGAGATTA	TCGATGTTAA	ACTACCTGAA	CAAACGTGT	TTCAAGATTG	GGAAAAGCAA	11940
GATCACATTA	GTAGCATTAC	TTATGCTAGA	TATTTTATTG	CAGATTATAT	CCAAGAAGAT	12000
AAGGTTTTAT	ATTTAGACAG	TGATTTGATT	GTAAATACTT	CTTTAGAGAA	ATTATTTAGT	12060
ATTTGTTTAG	AAGAAAAATC	ACTCGCAGCA	GTTAAAGATA	CAGATGGAAT	TACATTTAAT	12120
GCAGGTGTTT	TATTAATCAA	CAATAAAAAA	TGGCGTCAAG	AGAAATTAAA	AGAACGACTA	12180
ATTGAACAGA	GCATTGTTAC	AATGAAGGAA	GTTGAAGAAG	GCCGTTTCGA	GCATTTTAAT	12240
GGTGATCAAA	CGATTTTAA	TCAGGTCTTG	CAAGATGATT	GGTTAGAACT	AGGTCGAGCT	12300
TATAATTTAC	AAGTAGGGCA	TGATATTGTG	GCTTTGTATA	ACAATTGGCA	GGAACATCTG	12360

582

GCTTTTAATG	ATAAACCAGT	GGTGATTCAT	TTTACGACCT	ACAGAAAACC	CTGGACTACC	12420
TTGACAGCCA	ATCGTTATCG	TGATTTATGG	TGGGAATTCC	ATGATTTGGA	GTGGAGTCAG	12480
ATTTTACAAC	ACCATATGGG	AGAATTTGAA	CTAATATCGC	CTCTAGATAA	GGAATTTTCT	12540
TGCTTAACCT	TAACGAATTC	CCAAGATTTA	GAAGGAATAG	AAGAGCTAGT	TACAGCTCTA	12600
CCTGAGGTGG	TATTTTCATAT	CGCAGCTTGG	ACGGATATGG	GAGATAAATT	AAAAAAATTA	12660
GCTGTATATA	ATAATGTGAG	ATTGCATCCA	CAAATTGTTT	CACCGGTCTT	AGATAAGCTG	12720
AAAAAGTCAA	CAAATCTATA	TTTGGATATC	AATCATGGTA	GTGCAGATGA	GAACTTTTTA	12780
AAATCTTTGC	AAGAACAAGA	AAAAACGCTA	CTAGCTTTTC	AATCGACTCA	GCACGGAGAG	12840
TTAGGACAAA	TCGTTTTTCGA	AAATGGGAAA	GTTTCCTTTA	TGATTGATAC	GATTAAAGAT	12900
TTTAAGAAAA	ACGGACATCT	TACCTGTTTT	CGACAACCTC	CAAGTTTAAC	TTGTTTAACG	12960
TTTACGGCTT	CTCAGTATAT	CGAACAATTG	GATTACTTGG	CTGGACAGTT	GCCAAATGTT	13020
GTTTTTCAAA	TTGCTGCTTG	GACAGCTATG	GGGCCAAAAT	TATATGATTT	GTCTAATCGT	13080
TATCCTAATA	TTCAGCTCTA	TCCGGCAATT	TCTAGAGATA	AGCTAGACGA	GTTGAAGGAG	13140
AAGATGGATG	CTTATTTAGA	TATCAACCTA	CTGACTTCAA	CATCCGATAT	CGTTGCAGAA	13200
ATGGCTCATC	TATCTAAACC	TATACTAGCC	TTTTATAAAT	CTCAAAATGG	GAATAATGGC	13260
CAAAGGTTGT	ATTCAAGTGA	ACATCCTGAA	CGAATGTTGG	CTGATTTGCA	AAAATTGATA	13320
ACTAAGGATA	TGCTAGAAAA	ACCGCTTGAT	ATAATCCAGG	TGAAAGGGAT	AGATGAAACC	13380
TTGGATTATA	TTATTGAACA	CAACTCTTCT	TTAGTTCGTT	TTGGAGATGG	GGAAATCAAT	13440
ATGCTTGCAG	GGCATTCAAT	TCCCTACCAG	GATTATGATG	AAGAGTTGGT	TTCAATCATG	13500
AGGGACATTA	TCGGCCAAGA	AAGTCGAGAA	GATTTAGTAG	TGTGCCTTCC	TGATGCTTTT	13560
ACAGATCGTT	TTAGGTTTAC	ATCGTGGGCG	ATTCCATTTT	GGAAAGATCA	CATGGATCAT	13620
TATATGGATT	TTTACAGAGA	GTTATGCAGT	GATTCATGGT	ATGGCTCAAC	CTTTGTATCT	13680
CGCCCTTATA	TCGATTTTGA	AGACAAGAGT	CAAGCTAAAG	CTCAATTTGA	AAAATTGAAA	13740
AGCATTTGGG	AAAACCGTGA	CTTACTGATA	GTCGAAGGTG	CGACTTCTCG	TTCAGGTGTC	13800
GGAAATGATT	TATTCGATGA	GGCAAATTCT	ATTAAGCGAA	TTATCTGTCC	TTCTCATAGT	13860
GCCTTTTCTA	GAGTTCATGA	ACTTGAACAA	GAAATTGAAA	AGTATGCTGG	TGGTCGCTTG	13920
ATTTTATGTA	TGCTTGGAAC	TACAGCAAAA	GTTCTGAGTT	ATAATCTATG	CCAGATGGGC	13980
TATCAAGTTT	TGGATGTAGG	CCATATTGAC	TCAGAGTATG	AATGGATGAA	AATGGGAGCT	14040
AAAAC TAAGG	TTAAATTTTC	TCATAAACAT	ACTGCAGAAC	ATAATTTCGA	CCAAGATATT	14100
GAATTTATTG	ATGATGAAAC	CTATAACAGT	CAGATTGTTG	CACGAATATT	AAACTAGACT	14160

583

ATTTAAAATA AATGATAAGG ATTTAAAATG AGAAATACCA AACGCGCTGT AGTATTTGCA	14220
GGTGATTACG CTTATATTCTG ACAAATCGAA ACGGCGATGA AGTCACTCTG TAGACACAAT	14280
AGTCATTTGA AAATTTATCT GCTAAATCAG GACATTCCTC AGGAATGGTT TAGTCAAATA	14340
AGAATATATT TACAAGAGAT GGGGGGCGAC TTGATTGACT GCAAGTTAAT TGGCTCACAG	14400
TTTCAAATGA ATTGGTCTAA TAAATTACCT CATATCAATC ATATGACATT TGCACGCTAT	14460
TTTATTCCAG ATTTTGTAAC AGAAGATAAA GTTCTCTATC TAGATAGTGA TTTGATTGTG	14520
ACTGGTGATT TGACCGATTT GTTTGAATTA GACTTAGGTG AAAATTATTT GGCAGCAGCT	14580
CGTTCTTGCT TTGGAGCAGG AGTCGGCTTC AATGCTGGTG TTCTCTTGAT TAACAACAAA	14640
AAATGGGGAT CTGAAACTAT TCGACAAAAA TTGATTGACT TAACAGAAAA AGAACATGAG	14700
AATGTGGAAG AAGGAGACCA GTCAATTTTG AATATGTTGT TTAAAGATCA ATATAGTTCC	14760
CTTGAAGATC AATATAATTT TCAAATAGGA TATGATTATG GGGCGGCAAC CTTTAAACAAT	14820
CAATTCATTT TTGATATTCC GCTCGAACCA CTGCCACTAA TTTTACACTA TATTTCTCAG	14880
GATAAGCCTT GGAATCAATT TTCTGTTGGA CGTCTAAGAG AAGTTTGGTG GGAATACTCT	14940
TTGATGGATT GGTCTGTTAT TTAAATGAA TGGTTTTCAA AGAGTGTGAA GTACCCTAGT	15000
AAATCACAAA TATTTAAGTT GCAATGTGTT AATTTAACGA ATTCTTGGTG TGTGAGAAA	15060
ATCGATTATT TGGCGGAGCA ATTGCCAGAA GTTCATTTTC ATATTGTTGC TTATACAAAT	15120
ATGGCAAATG AACTACTAGC TTAAACGCGT TTTCTTAATG TTACCGTATA TCCAAATTC	15180
TTACCAATGT TATTGGAACA AATAGTAATA GCTTCAGATT TGTATTTGGA TTTGAATCAT	15240
GATCGAAAAAT TAGAAGATGC ATATGAGTTT GTGCTTAAGT AAAAAAACC AATGATAGCT	15300
TTGACAATA CTTGCTCTGA AAATCTTTCT GAGATTTTCT ATGAAGGTAT CTATCCAAGC	15360
TCCATTCCGA AAAAAATGGT TGCAGCAATC AGATCTTACA TGAGGTAGAG AACAGTATGA	15420
GAAAATCAAT AGTATTAGCG GCAGATAATG CCTATCTTAT TCCTTTAGAG ACGACTATAA	15480
AGTCTGTATT GTATCACAAT AGAGATGTTG ATTTTATAT TCTCAACAGT GATATAGCTC	15540
CTGAATGGTT TAAATTATTG GGGAGAAAAA TGGAAGTTGT GAATTCTACA ATTCGCAGTG	15600
TACACATTGA TAAAGAACTT TTTGAAAGCT ATAAAACAGG ACCTCATATA AATTATGCTT	15660
CTTACTTTAG ATTTTTTGCG ACAGAAGTGG TTGAATCTGA TAGGGTATTG TATCTGGATT	15720
CCGATATCAT TGTAAGTGGG GAACTAGCTA CTTTGTTTGA GATAGATCTC AAAGGATATT	15780
CAATTGGTGC TGTGATGAT GTCTATGCCT ATGAAGGACG AAAATCTGGA TTTAATACTG	15840
GTATGTTACT AATGGATGTT GCAAAGTGGA AAGAACATTC TATTGTCAAT AGTTTATTGG	15900

584

AATTAGCGGC	CGAGCAGAAT	CAAGTTGTTC	ATCTTGGGGA	TCAGAGTATT	TTAAATATTT	15960
ATTTTGAGGA	TAATTGGCTA	GCCTTAGATA	AAACATATAA	TTATATGGTG	GGTATTGATA	16020
TTTATCACCT	TGCTCAAGAA	TGTGAACGTC	TAGATGACAA	TCCACCTACA	ATTGTTCACT	16080
ATGCTAGTCA	TGATAAACCT	TGGAATACAT	ATAGTATATC	TAGACTACGT	GAATTATGGT	16140
GGGTTTATAG	AGATTTGGAT	TGGTCAGAGA	TTGCTTTTCA	ACGTTCCGAT	TTAAATTATT	16200
TTGAAAGAAG	CAATCAGTCT	AAAAACAAG	TGATGCTTGT	GACATGGAGT	GCAGATATAA	16260
AACATTTAGA	GTATTTAGTA	CAACGGTTAC	CTGATTGGCA	TTTTCATTTG	GCTGCACCGT	16320
GTGATTGTTC	TGAGGAGCTG	ACCTCTCTAT	CACAGTATAC	GAATGTAACA	GTATATCAAA	16380
ATGTATTACA	TAGTAGAATT	GATTGGCTAT	TGGACGATTC	TATAGTTTAT	TTAGATATTA	16440
ATACAGGTGG	AGAGGTTTTT	AATGTAGTTA	CAAGGGCACA	AGAAAGTGGC	AAGAAAATCT	16500
TCGCTTTTGA	TATCACACGT	AAAAGTATGG	ATGATGGACT	CTATGACGGT	ATTTTTTCTG	16560
TGGAGAGACC	AGATGATTTA	GTGGATAGAA	TGAAGAATAT	AGAGATAGAG	TAATGAGTGA	16620
ATTAATTAGT	GTTGTGGTAC	CGATATACAA	TACGGGAAAA	TATTTAGTGG	AGTGTGTCGA	16680
GCATATTCTG	AAGCAAACCT	ATCAAAATAT	AGAAATTATT	TTAGTTGATG	ACGGTTCTAC	16740
GGATAATTCT	GGGGAAATTT	GTGATGCTTT	TATGATGCAA	GATAATCGTG	TGCGAGTATT	16800
GCATCAAGAA	AATAAGGGGG	GGGCAGCACA	AGCTAAAAAT	ATGGGGATTA	GTGTAGCTAA	16860
GGGAGAGTAC	ATCACGATTG	TTGATTCAGA	TGATATCGTA	AAAGAAAATA	TGATTGAAAC	16920
TCTTTATCAG	CAAGTCCAAG	AAAAGGATGC	AGATGTTGTT	ATAGGGAATT	ACTATAATTA	16980
TGACGAAAGT	GACGGGAATT	TTTATTTTTA	TGTAACAGGG	CAAGATTTTT	GCGTCGAAGA	17040
ATTAGCTATA	CAAGAAATTA	TGAACCGTCA	AGCAGGAGAT	TGGAAATTCA	ATAGCTCGGC	17100
CTTTATATTG	CCGACATTTA	AGTTGATTAA	AAAAGAATTA	TTCAATGAAG	TTCACTTTTC	17160
AAATGGTCGC	CGCTTTGATG	ATGAAGCAAC	TATGCATCGC	TTTTATCTTT	TAGCCTCTAA	17220
AATCGTCTTT	ATAAACGATA	ATCTCTATCT	GTATAGAAGA	CGTTCAGGAA	GCATCATGAG	17280
AACGGAATTT	GATCTTTCCT	GGGCAAGAGA	TATTGTTGAA	GTGTTTTCTA	AGAAAATATC	17340
GGATTGTGTC	TTGGCTGGTT	TGGATGTCTC	CGTTCTGCGT	ATTGATTTTG	TCAATCTTTT	17400
AAAAGATTAT	AAGCAAACCT	TAGAATACCA	TCAATTAACA	GATACTGAGG	AATATAAAGA	17460
TATTTGTTTC	AGATTAAAGT	TGTTTTTTGA	TGCAGAACAA	AGAAATGGTA	AAAGTTGAAA	17520
TAAAAGAATT	GTTATTTACC	ATATCACAAA	CAATGAAGGT	GAGGGGAGTG	TTTTATGACT	17580
AAGATTTATT	CGTCAATAGC	AGTAAAAAAA	GGACTATTTA	CCTCATTTCT	ACTGTTTATC	17640
TATGTATTGG	GAAGTCGTAT	TATTCTCCCT	TTTGTTGACC	TAAATACTAA	AGATTTTTTA	17700

585

GGAGGTTCAA	CAGCCTATCT	AGCCTTCTCA	GCCGCCCTAA	CAGGTGGGAA	TCTAAGAAGT	17760
TTATCAATTT	TTTCTGTTGG	ATTATCCCCCT	TGGATGTCCG	CCATGATTTT	ATGGCAGATG	17820
TTTTCTTTTT	CTAAACGGTT	GGGTTTAACA	TCTACGTCTA	TAGAAATACA	AGATCGCCGT	17880
AAAATGTACC	TGACCTTGCT	AATTGCTGTG	ATTCAATCCT	TGGCAGTTAG	CTTGAGACTG	17940
CCAGTACAAT	CCTCCTATTC	TGCAATATTG	GTTGTTCTAA	TGAATACAAT	ATTGCTGATA	18000
GCAGGAACAT	TTTTTCTTGT	TTGGTTGTCA	GATTTAAATG	CGAGTATGGG	GATTGGAGGT	18060
TCTATTGTAA	TCCTCCTATC	CAGTATGGTT	TTAAATATTC	CTCAGGATGT	TTTGGAACA	18120
TTTCAGACAG	TACACATTCC	AACAGGGATT	ATTGTGTTAC	TTGCTTTATT	AACCCTTGTC	18180
TTTTCTTATT	TACTTGCCCT	TATGTATCGA	GCTCGCTATT	TGGTTCCTGT	TAATAAAATT	18240
GGCTTACACA	ATCGATTTAA	ACGCTATTCT	TATCTCGAAA	TCATGTTGAA	TCCTGCAGGT	18300
GGGATGCCTT	ATATGTATGT	GATGAGTTTT	CTTAGTGTAC	CAGCTTATTT	GTTTCATCTG	18360
TTGGGATTTA	TTTTCCCTAA	TCATTCAGGG	TTAGCGGCTT	TATCAAAGGA	ATTTATGGTT	18420
GGAAAGCCTT	TGTGGGTCTA	TGTTTATATT	TCGGTCTTAT	TTTTATTTAG	TATCATTTTT	18480
GCTTTTGTTA	CGATGAATGG	AGAAGAGATT	GCAGACCGTA	TGAAAAAATC	TGGAGAATAC	18540
ATTTATGGTA	TTTATCCAGG	TGCGGATACT	AGTCGATTTA	TTAATCGATT	GGTCCTTCGT	18600
TTCTCAGTCA	TAGGTGGTCT	CTTTAATGTG	ATTATGGCAG	GTGGTCCCAT	GCTTTTTGTT	18660
TTGTTTGATG	AAAAGTTATT	ACGATTGGCA	ATGATTCCAG	GCTTATTTAT	GATGTTCCGG	18720
GGCATGATTT	TTACGATTAG	AGACGAGGTC	AAGGCTTTAA	GGCTAAATGA	GACCTATAGA	18780
CCTTTGATTT	AGGAGACTTT	TATGTATTAT	TTTATTCCAG	CTTGGTATGG	GTCAGAAAGA	18840
ACATGGCATG	CAGATATCAC	TCCATGGTAT	TTTTCTCATT	TTCGTCTAGA	GTTTGATGAT	18900
ACCTTTCACC	AGATTCCGGCT	CTTTCAAGAG	CAAGATATAG	ATTCTCGTCT	ATTAGTATTA	18960
GCTTACCAGC	CTCATCTACG	TTATTTTTTA	TATAGACATG	GTGTGTTAGA	AATGGATACT	19020
TATTCGTTTT	TTGATGTTAT	GCAAGATTTT	CATAATCTCC	ATACCCAAGT	TTTAAGCATT	19080
AGAGATATTG	AGTGGGATGA	TGACTGTGAA	TTTATTTATA	GTCCCTTTAC	GATTATCGTT	19140
CAAAAAAATG	GGAAGAAATT	TGCTAAGGTT	GAACATGGAG	TTGAAGGCTT	CATCAGTGAT	19200
ATACAGTATT	TTGAACCAAA	TGGTCAAATA	CATATGCACC	ATATCGTGGA	TGATCGTGGG	19260
TTTGTATCGA	GCATTATCTT	TTTTGAAGAT	GGGCAAGCAG	CCTATCAAGA	ATATCTGAAC	19320
CTCAAGGGAG	AGTGGCAATT	CAGAGAGCGT	TTAAAAGAAG	GAGGACAGGT	AGAAGTCAAT	19380
CCAATTTTGG	GTTATCGCTT	TAAAATGCTT	ACCTATCAAA	ATATGGGAGA	TCTGGTGGCA	19440

586

GAATTTTTTG	AGAATTATCT	GCAAACGTAT	GTGAAGGATC	AGGATATTTT	TATGCTTCCT	19500
TCTCATTCTC	ATCATGACCA	GTTGGTACTA	GATCGTTTAC	CTAGTACTAA	TCCTAAACTG	19560
TTGAGTCTGT	TCATTGGACG	TAATCCTCAA	GATACCTTTA	GGGATTTAGA	TGTAACTTTT	19620
GAAAAATCGG	ATTTGATTTT	GGTGGATAGA	GAGGATAGTT	TACGATTGTT	GCAGGAGTTG	19680
TATCCTGAAC	GAATGCATCA	ATGTTATCAT	TTATCATCTT	TTGACACCCG	ATTACGATTG	19740
GGACGAAGCC	AAACTAAGAA	AGAATCCATC	ATTTATTTTC	AACTGGATTT	TGAGCAGGGG	19800
ATTGATAATC	AAGCTCTGCT	TCAAGTCTTG	TCCTTTGTCTG	CTGAAAATAA	GGATACTGAG	19860
GTGATTTTTG	GAGCCTTTGC	TGCTAGTCAG	GAGCAAATGA	ATGAGGTTGA	AGGGATTGTT	19920
GAGTCTTTCA	TCCAAGAAAA	CATTCAATCC	GAAAATCTGG	GAAAGGCGAT	TGATTATGGT	19980
GATGCAGAAA	ATCCTCTGGA	AGAAAATCAA	CACCAGGACT	TACGCTTACA	GTTTGTTAAC	20040
TTGAATGATG	AGTTAGATTT	GATAAAAACA	CTAGAATTTG	TCCGTTTGAT	TGTGGATTTA	20100
AATAGACATC	CTCATCTCTA	CACACAGATT	GCTGGGATTA	GTGCAGGAAT	TCCTCAAATC	20160
AACCTAGTTG	AAACCGTCTA	TGTTGAACAT	TTAAAAAATG	GTTATTTGTT	AGCAGATGTT	20220
ACAGAATTTT	CTAAGGCTGC	ACATTATTAC	ACAGATAGGT	TGAAGGAGTG	GAATGAGTCC	20280
TTGATATATT	CAATTGATAA	GATTAAGGAG	CACACAGGAC	AACAATTTCT	TGGAAAATTA	20340
GAGAAATGGA	TAGAGGAGGT	TAAAAATGTC	AAAGGAACTT	AATATTTTAC	AGATAGGACT	20400
TGCCAATTGG	GAAAATCACT	ATGACATACC	TGAAAATATG	AGTTGGTATT	ATTTTTACCC	20460
AAACTCATCA	AAAGCCCTTC	GTGAAATAAT	TGAAAAGAG	GATATTAACC	GTTTTTCATGC	20520
AGTTTTAATA	GAAGATGGTC	AGTATTCCAG	AGACTTATTT	TCCTATGTAA	AATATTTTGA	20580
ACCTTATACT	TTATTTTATA	ACCAGAATCT	ACAAATAAAT	GATAGAGAGG	TTGTGGATTT	20640
TCTAAAAAAA	CGATGTGCAC	AAGCAATTGA	TTTTTTAAGT	CCCCAACAAAC	TAATCAATGA	20700
TTTAAGTAAA	TCTCTTTTTG	GCGGTGGGTA	TGGTGATAAA	CTCTTTCCTC	CGACGATACA	20760
AGTCAATCCA	AATTTTACAG	GAGCTATTTT	TTATCAAGGA	TTGGATTATG	TCAGTTTGGA	20820
AGGTGAGTTT	GGGCAAGATT	TTGCCCAGCT	TGCCTATTGG	GCTTATAATA	TTATGGTGCA	20880
AAAAACACTC	CCTATTGAGT	TGTGGCTTGA	ATATGAGAAG	GAAGGCAATT	GTGACTTTTCG	20940
TTTAGTAATC	CGTAAAATGT	GGAGTGGGTC	TGTTGATGAT	TTCTTTGAAG	AAGTAATAGT	21000
ATCTGAAAAA	GACTTGAGC	AAGCACTTTT	TATGGATAGT	CGAGACGGAG	ACTACTTTCT	21060
CTCGATATCT	GTTGAAGCAA	GAGGTCGTGG	AACTATCAAA	CTAGGTAATC	TTCACCAACG	21120
ATGGAGTCGA	AAACAATTTG	GTAAGTTTGT	ACTTGGTGGA	AATATCCTAC	ATGATTCCAA	21180
GCGTGATGAA	ATAAACTATT	TCTTCCATCC	AGGTGATTTT	AAACCGCCTT	TGACTGTCTA	21240

587

TTTTGCAGGT	TATCGACCTG	CAGAAGGATT	CGAGGGTTAC	TTTATGATGA	AAACTCTTGG	21300
ATGTCCCTTC	ATTTTATTTT	CTGATCCACG	TTTAGAGGGG	GGAGCTTTTT	ATCTCGGAAC	21360
GGATGAGCTA	GAGGGAAAAG	TAAAGGATAC	GATCACTCAC	TATCTTGATT	ATTTAGGCTT	21420
TGATCATAAG	GATTTGATTT	TATCAGGTCT	TTCTATGGGA	ACGTTTCCGG	CTCTCTATTA	21480
TGGTGCTTCT	TTTGAACCCC	ATGCCATCAT	AGTTGGTAAG	CCCTTGGCTA	ATTTAGGAAC	21540
TATAGCTAGT	CGTGGACGTT	TGGACGCACC	GGGTGTCTCT	AACTTAGCTT	TTGATTGTTT	21600
AATTCATCAT	ACAGGTGGGA	CAAGTTCTCA	AGATATGACG	GAGTTGGATC	AGCGTTTTTG	21660
GAAAATTTTT	AAACAAGCAA	ATTTTTTCAA	GACAACCTTT	GGTTTATCCT	ATATGAAAGA	21720
TGAAGAAATG	GATCCACAAG	CCTATGAACA	ATTAGTGTCT	TATCTGTGTA	ATACAGGTGC	21780
GAAGATTTTA	TCTAAAGGAA	CTGCTGGACG	ACACAATGAT	GATACAGATA	CCAATATTTT	21840
TTGGTTTTTG	CACTTTTATA	GAATGGTCTT	AGAGACTGGT	TTTGGAAGGG	AGAAAAGATG	21900
ATTATTACAC	AGAGACAGTC	TATTCATTGG	GGAGAAGTTG	GTGGGACTTA	TATGTATGGA	21960
ACAACTGTAT	CTTATTACCC	TGACAAAAGT	GTTTCGTCTGT	ATAATCCTCT	ATTGCCATCT	22020
GGTGAGATTC	TAAAGACTTG	GTTTTCTAGT	GTCAATTACC	AGGCTGCACG	AACCCAACCT	22080
CAGCTTCCCT	TATTA AAAAG	AAAGCAGGAG	TATCAACTAT	CACTGGTTTT	TGACTGTCAG	22140
CCTGAAAATG	GAGTTTATAC	CAAGATAACT	TTTTTTGACC	GCTATGGTGA	TATTTTAGAA	22200
AAAAAGGTAG	AAAAAGTGAA	AGATTTTATA	TTTACTTATC	CAGAAGATAG	TTATACTTAT	22260
CGAGTTTCTC	TTTTAAGTGC	TGGATTTGAG	TCCTTAACTT	TTTATCATTT	TTCTATCAAG	22320
GAGATCAGAA	GTGTTTAGAC	GTTTAGGTCA	AGATTTCCAG	CTTAGGAAAG	TGAAAAAGAT	22380
TTTAAAGCAG	ATTAATGCCC	TGAAAGGCAA	GATGTCCTCT	CTTTCGGATC	AAGAATTAGT	22440
AGCTAAAACA	GTAGAGTTTC	GTCAGCGTCT	TTCCGAGGGA	GAAAGTCTAG	ACGATATTTT	22500
GGTTGAAGCT	TTTGCTGTGG	TGCGTGAAGC	AGATAAGCGG	ATTTTAGGGA	TGTTTCCTTA	22560
TGATGTTCAA	GTCATGGGAG	CTATTGTCAT	GCACTATGGA	AATGTTGCTG	AGATGAATAC	22620
GGGGGAAGGT	AAGACCTTGA	CAGCTACCAT	GCCTGTCTAT	TTGAACGCTT	TTTCAGGAGA	22680
AGGAGTGATG	GTTGTGACTC	CTAATGAGTA	TTTATCAAAG	CGTGATGCCG	AGGAAATGGG	22740
TCAAGTTTAT	CGTTTTCTAG	GATTGACCAT	TGGTGTACCA	TTTACGGAAG	ATCCAAAGAA	22800
GGAGATGAAA	GCTGAAGAAA	AGAAGCTTAT	CTATGCTTCG	GATATCATCT	ACACAACCAA	22860
TAGTAATTTA	GGTTTGATT	ATCTAAATGA	TAACCTAGCC	TCGAATGAAG	AAGGTAAGTT	22920
TTTACGACCG	TTTAACTATG	TGATTATTGA	TGAAATTGAT	GATATCTTGC	TTGATAGTGC	22980

588

ACAAACTCCT	CTGATTATTG	CGGGTTCTCC	TCGTGTTTCAG	TCTAATTACT	ATGCGATCAT	23040
TGATACACTT	GTAACAACCT	TGGTCGAAGG	AGAGGATTAT	ATCTTTAAAG	AGGAGAAAGA	23100
GGAGGTTTGG	CTCACTACTA	AGGGGGCCAA	GTCTGCTGAG	AATTTCCCTAG	GGATTGATAA	23160
TTTATACAAG	GAAGAGCATG	CGTCTTTTGC	TCGTCATTTG	GTTTATGCGA	TTCGAGCTCA	23220
TAAGCTCTTT	ACTAAAGATA	AGGACTATAT	CATTCGTGGA	AATGAGATGG	TACTGGTTGA	23280
TAAGGGAACA	GGGCGTCTAA	TGGAAATGAC	TAAACTTCAA	GGAGGTCTCC	ATCAGGCTAT	23340
TGAAGCCAAG	GAACATGTCA	AATTATCTCC	TGAGACGCGG	GCTATGGCCT	CGATCACCTA	23400
TCAGAGTCTT	TTTAAGATGT	TTAATAAGAT	ATCTGGTATG	ACAGGGACAG	GTAAGGTCGC	23460
GGAAAAAGAG	TTTATTGAAA	CTTACAATAT	GTCTGTAGTA	CGCATTCCAA	CCAATCGTCC	23520
GAGACAACGG	ATTGACTATC	CAGATAATCT	ATATATCACT	TTACCTGAAA	AAGTGTATGC	23580
ATCCTTGGAG	TACATCAAGC	AATACCATGC	TAAGGGAAAT	CCTTTACTCG	TTTTTGTAGG	23640
CTCAGTTGAA	ATGTCTCAAC	TCTATTCGTC	TCTCTTGTTT	CGTGAAGGGA	TTGCCCATAA	23700
TGTCCTAAAT	GCTAATAATG	CGGCGCGTGA	GGCTCAGATT	ATCTCCGAGT	CAGGTCAGAT	23760
GGGGGCTGTG	ACAGTGGCTA	CCTCTATGGC	AGGACGTGGT	ACGGATATCA	AGCTTGGTAA	23820
AGGAGTCGCA	GAGCTTGGGG	GCTTGATTGT	TATTGGGACT	GAGCGGATGG	AAAGTCAGCG	23880
GATCGACCTA	CAAATTCGTG	GCCGTTCTGG	TCGTCAGGGA	GATCCTGGTA	TGAGTAAATT	23940
TTTTGTATCC	TTAGAGGATG	ATGTTATCAA	GAAATTTGGT	CCATCTTGGG	TGCATAAAAA	24000
GTACAAAGAC	TATCAGG TTC	AAGATATGAC	TCAACCGGAA	GTATTGAAAG	GTCGTAAATA	24060
CCGGAAACTA	GTCGAAAAGG	CTCAGCATGC	CAGTGATAGT	GCTGGACGTT	CAGCACGTCC	24120
TCAGACTCTG	GAGTATGCTG	AAAGTATGAA	TATACAACGG	GATATAGTCT	ATAAAGAGAG	24180
AAATCGTCTA	ATAGATGGTT	CTCGTGACTT	AGAGGATGTT	GTTGTGGATA	TCATTGAGAG	24240
ATATACAGAA	GAGGTAGCGG	CTGATCACTA	TGCTAGTCGT	GAATTATTGT	TTCACTTTAT	24300
TGTGACCAAT	ATTAGTTTTT	ATGTTAAAGA	GGTTCCAGAT	TATATAGATG	TAACTGACAA	24360
AACTGCAGTT	CGTAGCTTTA	TGAAGCAGGT	GATTGATAAA	GAAC TTTCTG	AAAAGAAAGA	24420
ATTACTTAAT	CAACATGACT	TATATGAACA	GTTTTTACGA	CTTTCAC TGC	TTAAAGCCAT	24480
TGATGACAAC	TGGGTAGAGC	AGGTAGACTA	TCTACAACAG	CTATCCATGG	CTATCGGTGG	24540
TCAATCTGCT	AGTCAGAAAA	ATCCAATCGT	AGAGTACTAT	CAAGAAGCCT	ACGCGGGCTT	24600
TGAAGCTATG	AAAGAACAGA	TTCATGCGGA	TATGGTGCGT	AATCTCCTGA	TGGGGCTGGT	24660
TGAGGTCACT	CCAAAAGGTG	AAATCGTGAC	TCATTTTCCA	TAAAAGGAGA	AAATATGACA	24720
ATTTACAATA	TAAATTTAGG	AATTGGTTGG	GCTAGTAGCG	GTGTTGAATA	CGCTCAAGCC	24780

589

TATCGTGCTG	GTGTTTTTCG	GAAATTAAAT	CTGTCCTCTA	AGTTTATCTT	TACAGATATG	24840
ATTTTAGCCG	ATAATATTCA	GCACTTAACA	GCCAATATTG	GTTTTGATGA	TAATCAGGTT	24900
ATCTGGCTTT	ATAATCATTT	CACAGATATC	AAAATTGCAC	CTACTAGCGT	GACAGTGGAT	24960
GATGTCTTGG	CTTACTTTGG	TGGTGAAGAA	AGTCACAGAG	AAAAAATGG	CAAGGTTTTA	25020
CGTGTATTCT	TTTTTGACCA	AGATAAGTTT	GTAACCTGTT	ATTTGGTTGA	TGAGAACAAG	25080
GACTTGGTTC	AACATGCCGA	GTATGTTTTT	AAGGGAAACC	TGATTCGGAA	GGATTACTTT	25140
TCTTATACGC	GTTATTGTAG	CGAGTATTTT	GCTCCCAAGG	ACAATGTTGC	AGTCTTATAC	25200
CAACGAACTT	TTTATAATGA	AGACGGGACT	CCAGTCTATG	ATATCTTGAT	GAATCAAGGG	25260
AAGGAAGAAG	TTTATCATTT	CAAGGATAAG	ATTTTCTATG	GAAAGCAAGC	TTTTGTGCGT	25320
GCCTTTATGA	AATCTTTGAA	TTTGAATAAG	TCTGATTTGG	TCATTCTCGA	TAGGGAGACA	25380
GGTATTGGAC	AGGTGTGTGT	TGAGGAAGCA	CAGACAGCAC	ATCTAGCGGT	AGTTGTTCAT	25440
GCGGAGCATT	ATAGTGAAAA	TGCTACAAAT	GAGGACTATA	TCCTTTGGAA	TAACTATTAT	25500
GACTATCAGT	TTACCAATGC	AGATAAGGTT	GACTTCTTTA	TCGTGTCTAC	TGATAGACAA	25560
AATGAAGTTC	TACAAGAGCA	ATTTGCCAAA	TATACTCAGC	ATCAGCCAAA	GATTGTTACC	25620
ATTCCTGTAG	GCAGTATTGA	TTCTTGACA	GATTCAAGTC	AAGGGCGCAA	ACCATTTTCA	25680
TTGATTACGG	CTTCACGTCT	TGCCAAAGAA	AAGCACATTG	ATTGGCTTGT	GAAAGCTGTG	25740
ATTGAAGCTC	ATAAGGAGTT	ACCGGAACTA	ACCTTTGATA	TCTATGGTAG	TGGTGGAGAA	25800
GATTCTCTGC	TTAGAGAAAT	TATTGCAAAT	CATCAGGCAG	AGGACTATAT	CCAACCTAAG	25860
GGGCATGCGG	AACTTTCGCA	GATTTATAGC	CAGTATGAGG	TCTACTTAAC	GGCTTCTACC	25920
AGCGAAGGAT	TTGGTCTGAC	CTTGATGGAA	GCTATTGGTT	CAGGTCTACC	TCTAATTGGT	25980
TTTGATGTGC	CTTATGGTAA	TCAGACCTTT	ATAGAGGATG	GGCAAAATGG	TTATTTGATT	26040
CCAAGTTCAT	CTGACCATGT	AGAAGACCAA	ATCAAGCAAG	CTTATGCCGC	TAAGATTTGT	26100
CAATTGTATC	AAGAAAATCG	TTTGGAAGCT	ATGCGTGCCT	ATTCTTACCA	AATTGCAGAA	26160
GGCTTCTTGA	CCAAAGAAAT	TTTAGAAAAG	TGGAAGAAAA	CAGTAGAGGA	GGTGCTCCAT	26220
GATTGAACTT	TATGATAGTT	ACAGTCAAGA	AAGTCGAGAT	TTACATGAAA	GTCTAGGCGC	26280
TACTGGTCTT	TCTCAACTTG	GAGTGGTCAT	CGATGCAGAT	GGTTTTCTGC	CTGATGGTCT	26340
GCTTTCTCCT	TTTACCTATT	ATCTAGGTTA	CGAGGATGGA	AAACCTCTCT	ATTTTAATCA	26400
AGTTCCCGTT	TCAGATTTTT	GGGAAATTTT	AGGAGATAAT	CAGTCTGCTT	GTATTGAAGA	26460
TGTGACGCAG	GAGAGGGCTG	TCATTCATTA	TGCTGATGGA	ATGCAGGCTC	GCTTGGTTAA	26520

590

ACAGGTAGAC	TGGAAAGACC	TAGAAGGTCG	AGTACGTCAG	GTTGACCACT	ACAATCGCTT	26580
CGGAGCTTGT	TTTGCTACAA	CGACTTATAG	CGCAGATAGC	GAGCCGATTA	TGACAGTTTA	26640
CCAAGATGTC	AATGGTCAAC	AAGTTTACT	GGAAAACCAT	GTGACGGGTG	ATATCTTATT	26700
GACTTTGCCA	GGTCAGTCCA	TGCGTACTT	TGCAAATAAA	GTTGAATTTA	TCACCTTCTT	26760
TTTGCAAGAT	TTGGAAATAG	ATACCAGTCA	GCTTATCTTT	AATACTCTAG	CGACTCCTTT	26820
CTTGGTTTCC	TTCCATCATC	CAGATAAATC	TGGCTCGGAT	GTCTTGGTAT	GGCAGGAACC	26880
TCTCTATGAT	GCCATTCCAG	GTAATATGCA	GTTGATTTTG	GAAAGTGATA	ATGTGCGTAC	26940
TAAGAAGATC	ATCATTCCAA	ATAAGGCGAC	TTATGAGCGC	GCTTTAGAGT	TAAGTGACGA	27000
GAAATACCAT	GATCAGTTTG	TGCACTTGGG	TTATCATTAC	CAGTTCAAAC	GTGATAATTT	27060
CCTAAGACGA	GATGCCTTAA	TCTTGACCAA	TTCAGATCAG	ATTGAGCAAG	TAGAAGCAAT	27120
CGCAGGAGCC	TTGCCTGATG	TCACTTTCGG	TATTGCAGCG	GTGACAGAGA	TGTCTTCTAA	27180
GCTCTTAGAC	ATGCTTTGCT	ATCCTAATGT	GGCCCTTTAC	CAGAACGCTA	GTCCACAGAA	27240
GATTCAGGAG	CTGTATCAAC	TGTCGGATAT	TTACTTGGAT	ATAAACCACA	GTAATGAGTT	27300
GCTACAGGCA	GTGCGTCAGG	CCTTTGAGCA	CAATCTCTTG	ATTCTTGGCT	TTAATCAGAC	27360
GGTGCACAAT	AGACTTTATA	TCGCTCCAGA	CCATCTATTT	GAAAGTAGTG	AAGTTGCTGC	27420
TTTGGTTGAG	ACCATTAAAT	TGGCCCTTTC	AGATGTTGAT	CAAATGCGTC	AGGCACTTGG	27480
CAAACAAGGC	CAACATGCAA	ATTATGTTGA	CTTGGTGAGA	TATCAGGAAA	CCATGCAAAC	27540
TGTTTTAGGA	GGCTAACATG	TCAGAGGAAG	ATTTATTTTA	CAAAGACGTT	GAAGGCCGCA	27600
TGGAAGAGTT	GAAACAAAAA	CCCATCAAGA	AGGAAAAAGA	AACCCGAGGG	GAAAAGATTA	27660
GTAAGACTTT	TTCACTTTTA	CTGGGTTTGA	TGATTCTGAT	TGGTTTGCTC	TTTACTTTGC	27720
TGGGAATTTT	GAGGTAGATC	TATGATTGAA	ATACTAATTG	TTTTAGCTAT	TATCCTATCT	27780
CTTGCTTTGA	TTGTATTGGT	AACTATACAA	CCCCGTCAAA	ATCAACTATT	TTCCATGGAT	27840
GCCACTAGTA	ATATTGGTAA	ACCAAGCTAC	TGGCAGAGCA	ACACCTTGGT	CAAGGTGCTC	27900
ACTTTATTGG	TGAGTTTGGC	TTTATTTATT	CTACTATTAA	CCTTTATGGT	GATTACTTAT	27960
AAATAAAAGA	AAACTTCAGA	TATTCACCTT	TTGTGGATTG	GTCTGAAGTT	TTCTTTTTTA	28020
TACTCAATGA	AAATCAAAGA	GCAAAC TAGG	AAGCTAGCCG	CAGGCTgCTC	AAAACACCGT	28080
TTTGAGGTTG	TAGATATAAC	TGACGAAGTC	AGCTCAAAAC	ACCGTTTTGA	GGTTGTAGAT	28140
ATAACTGACG	AAGTCAGCTC	AAAACACCGT	TTTGAGGTTG	TGGATAGAAC	TGACGAAGTC	28200
AGCTCAAAAC	ACCGTTTTGA	GGTTGTGGAT	AGAACTGACG	AAGTCAGCTC	AAAACACCGT	28260
TTTGAGGTTG	TGGATAGAAC	TGACGAAGTC	AGCTCAAAAC	ACCGTTTTGA	GGTTGTGGAT	28320

591

AGAACTGACG	AAGctCAGTA	ACATATATAC	AGCAAGGCGA	CGCTGACGTG	GTTTGAAGAG	28380
TATTACTGTC	TATATTTTGT	GTAAAAATCA	ACTTTTACTT	GGATGAAGGT	TTTGGCTTCA	28440
CGTAGGAGTT	GAAGAAGGGT	GGCGCGGGTT	TCAAATTCTT	CTCTTGCTTT	GGGCAGACTG	28500
CGGTTCCGGA	AGACTTCCAG	ATAACGTTCA	ATTTTCATCTA	GCAAATCAGA	AGCAGGATTG	28560
GTCTGGCTCA	GTTGACCTGC	AATTTTTTGAA	AAGAGTTGCG	CTAAGATCAG	GCTTTCACTG	28620
GCGGCAAGGT	GACAAGTGTT	AATCTGTTGG	GCCATGTTTC	TCAGGATACG	ACTTTGTCGC	28680
TGTCTCATCT	CAAAGTAGTG	GATATGGTAG	TCTGTCTGGT	GAAAGAGGTG	GTCAGAGTGA	28740
TCCAAATAGA	CCAGTCTGAG	GGCTTCTTTC	AAAAGCGTGT	CTAATTCTGC	TACCAGCTGT	28800
GCTCGGTTGC	GTCCGTCTCC	TCTGGATAAA	TAGTATTTGA	AGCGCTGGAG	GATATCTTTT	28860
AACTTTTCTT	CCACCAGCGT	GTGGTAGTGC	TGGATTTTCT	CTTCTCGTGA	AGGCATATAG	28920
AGATTAACAA	GCAAGGCAAA	TCCTGTACCA	ATAGCAAAGA	GAAGGAATTC	ATTGACTAGA	28980
AGGTCTGGAG	AGGTTGACTC	TTGAACCAAG	AGATGGCTAA	CCAAAACAGT	GCTTGGTGTG	29040
ATGCCAATTT	CCCAGCCCAT	CTTGTAGGCT	AAAGGAACGT	AGAAGGCCAG	ATAGAGGCCG	29100
AGACTCCAGA	TATGAAATCC	GCTCAAGTGA	AAAGCTAGAA	CACCGATAGC	CAGAGCTAGA	29160
AGCATAGAAA	AAAGACGATT	GCGAGCCAGT	TTTAAAGTAC	TTCTACGCGT	ATCAGATAGG	29220
CTCAAGAGAG	CGATAATTCC	AGCCGAAACT	GCTGACGAAA	GATTGAGAAA	ATAAGCAAGC	29280
AGGCAGGCAA	GACAGGTAGC	TAAGATGAGC	TTGGTCGTAC	GTTGGCTAAT	AGACATAAGA	29340
ATTTCCCTAAT	AAGTTAGAAT	AAAAGCGTAA	AAGACAAGAC	ATGAGCAGGC	TTGCCTTGAT	29400
GAGTTATTTT	TTACGGGTTG	CTGCGTATTC	GGCAACGGCG	GTAAAGAGGA	CATCTGTAGA	29460
AGAGTTAAGG	GCTGTTTCAC	ATGAGTCTTG	GATGACACCA	ATCACAAAAC	CAACCCCAAC	29520
AATTTGTATG	GCAATATCGT	TAGAAATACC	GAAAAGGCTA	CAAGCAACTG	GGATAAGAAG	29580
GAGGGAACCT	CCGGCAATAC	CTGAAGCATC	ACAGGATGAG	ATAGCTGCTA	CCACACTGAG	29640
GACAAAGGCT	GTGGCAAAGT	CAACAGGAAT	TCCAAGAGTG	TTAACTGCAG	CAAGGGTCAA	29700
AAGGTTAATG	GTAATCGCTA	CTCCAGCCAT	ATTGATAGTA	GAACCGAGTG	GGATAGAAAC	29760
AGAATAGGTA	TCTGGGTTGA	GTCCAAGGTC	ATGGCAGAGT	TTCATGTTGA	CAGGAATGTT	29820
AGTCGCAGAA	CTACGAGTGA	AAAAGGCTGT	CACACCGCTG	ACACGGAGGC	AGTTCCAAAC	29880
TAGAGGGTAA	GGATTGCGTC	TCATAAAGAA	GAAGGCAATC	AAAGGGTTGA	CCACAGGGGC	29940
AACAAAAAGC	ATAGTCGTTA	CTAATAGAAC	CAATAAAATA	CCGTAGTTGG	CAAGGCTTCC	30000
GACTCCCTTG	TCAGAAATGG	TTTTAAAAAC	AAGACCAAGG	ATTCCAAATG	GAGCCAGATT	30060

592

GATGATCCAT	TCGACAATTT	TAGAAGTCAC	GTCAGCGATA	GTTTTTAGCA	ATTCTTGACT	30120
ATTTTTACTG	GCTTCTCTCA	TAGCGATTCC	AAAAATGACT	GCCCAAGATA	AGATTCTAAT	30180
ATAGTTAGCA	GTAAGCAGGG	CGTTGACTGG	GTTGTCAACC	AGTTTGAGCA	AGAGGTTGCT	30240
GAGAACCTGC	CCAATCCCAT	CTGGTGGTGC	AATTTTCAGTA	TTGGCACTAT	TTGGGGTAAT	30300
TTCAATAGGG	ACGATGAAAT	TTGCTAGTAC	AGCTACAAGA	GCAGCGGCGA	AAGTCCCTAT	30360
CATAGGATAT	ACAAGAAAAC	AACAGTTTTT	ATATTGCTAT	CTTGTCCTTT	TTGATGTTGG	30420
GAAAGGGCAT	TGGCAACGAG	AGCAAAGACT	AGGATAGGAG	CAACAGCTTT	TAGACCTCCA	30480
ACGAATAAAT	CCTCGAGTAG	CCCAATCCCT	GAGAGATTAG	GAAGGGTCAG	TCCTAGGATT	30540
CCCCACAAAG	CATACCAATC	AAGATACGCT	TGACAAGGCT	TGCCTTATTC	CAAGCATGAA	30600
TGATTCTTTT	CATAATAATC	TCCTTTTTGT	GTAGTGATTA	TGATTATAGT	ATAAATGATA	30660
GACAAAATCA	AGAATTTTCT	GTCTATTTTT	TGAATATTTA	TGGAGAATGA	GACTGATGAA	30720
AATATGGTAT	AATGAAATAA	AGGAGTTTTA	TATGCAAAAA	TTTATTCAGG	CTTATATTGA	30780
AAAGCTAGAT	GTGACAACCA	TTATCGAGAA	TATTCTAACC	AAGGTCATTT	CTCTTTTACT	30840
GCTTTTAATT	GTATTTTATA	TTGCTAAAAA	AATGCTTCAT	ACCATGGTGC	AGAGAATTGT	30900
CAAACCTTCT	CTAAAAATGT	CTCGTCATGA	TGTTGGACGC	CAAAAAACCA	TCTCACGTTT	30960
ACTAGAAAAT	GTGTTTAATT	ATACGCTATA	TTTCTTTTTA	CTCTACTGCA	TTTTGTCGAT	31020
TTTAGGTTTG	CCAGTTTCTA	GTTTGCTGGC	TGGAGCTGGT	ATTGCTGGGG	TAGCGATTGG	31080
TATGGGAGCC	CAAGGCTTTC	TGTCTGATGT	CATCAATGGC	TTTTTTCATCC	TCTTTGAACG	31140
TCAACTGGAT	GTGGGAGATG	AGGTCGTTCT	GACAAATGGA	CCGATTACTG	TATCGGGTAA	31200
GGTTGTCAGT	GTGGGAATTC	GTACGACACA	GCTTCGTAGC	GAGGAGCAAG	CCCTTCACTT	31260
TGTCCCTAAC	CGAAATATCA	CAGTTGTTAG	CAATTTCTCA	CGCACAGACT	AGACCTGTTA	31320
TTTTAAGTAA	TTTGTGGTAC	AATAGAGGGA	GTTTAATAAG	GAGAAAAGAT	GGTTTTAGAA	31380
AAGCAGTTGG	GCAATGGTTG	TACCTGGATA	GACCTAGACC	TAGGAAAGTT	GAATAAACTA	31440
GAAGACCTTT	CTGAAATTTA	CGGTTTGGAC	AAGGAAACCA	TTGAATACGC	ACTGGATAGA	31500
AACGAGCGCG	CCCACATGGA	CTACCACCGT	GAAAGTGAGA	CGGTTACCTT	TATCTATAAT	31560
GTCTTAGACG	TAAAAAAGGA	CAAGGCCTAC	TATGAGACTT	TTCCCATGAC	CTTTATTGTC	31620
GAGCATCGTC	GCCTGATTAC	CATTAGTAAT	ACCAAGAACG	CCTATGTCAT	TGAACAGATG	31680
ACTCGTTATC	TGGAGAACCA	TGACACGCTT	TCGATTTATA	AGTTTCTCTT	TGCCAGTCTG	31740
GAAATCATCA	GCAATGCCTA	CTATCCTGTC	ATTGAGCAGA	TGGACAAGAG	TAGGGATGAG	31800
GTCAATGACC	TCTTGCGCCA	GCGAACTACC	AAGAAAAACC	TCTTTGTCCT	GTCTGATTTG	31860

593

GAGACTGGTA TGGTTTATCT GACGGCAGCT GCCAAACAAA ATCGGATTTT GTTAGAGCAT	31920
ATTCAAGGTC ATGCCTTGTA TCGTAGTTTT GATGAGATTG AGAGAGAACA GTTTGATGAT	31980
GCCATGATTG AGGCTCATCA GCTGGTATCC ATGACAGACC TAATCTCTCA GATTTTACAG	32040
CAGCTTTCAG CCTCTTACAA CAATATTCTA AACAATAATC TGAATGACAA TTTGACAACC	32100
TTGACTATCA TTTCAGTCTT GCTAGCTGTT TTGGCAGTCG TGACAGGCTT TTTCGGAATG	32160
AATGTTCCCT TACCTTTAAC AGATGAGCCC CATGCTTGGC TCTATATCAG TTTGGCTAGT	32220
GCAGGTTTGT GGATTGTTTT ATCCTTGTTA CTAAGGAAAA TTGCGAAAAA AAGTTAAGAA	32280
AAGGAGCCAG AATGGCGATT GAAAATTATA TACCAGATTT TGCTGTGGAA GCAGTCTATG	32340
ATCTGACAGT CCCAAGCCTG CAGGCGCAGG GAATAAAGGC TGTTTTGGTC GATTTGGATA	32400
ATACCCTCAT TGCTTGGAAC AACCTGATG GAACGCCAGA GATGAAGCAA TGGCTACATG	32460
ACCTTCGGGA CGCGGTATT GGCATTATCG TAGTGTCAAA TAACACCAAA AAACGCGTTC	32520
AACGAGCAGT TGAGAAATTT GGGATTGATT ACGTTTACTG GGCCTTGAAG CCCTTCACAT	32580
TTGGTATTGA CCGTGCTATG AAGGAATTCC ACTATGACAA AAAGGAAGTG GTCATGGTTG	32640
GTGACCAACT CATGACAGAT ATACGAGCAG CCCACCGTGC AGGGATTCCG TCAATTTTAG	32700
TCAAACCCTT GGTCCAACAT GACTCAATCA AAACGCAGAT TAACCGAACT CGTGAGCGTC	32760
GTGTTATG	32768

(2) INFORMATION FOR SEQ ID NO: 72:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 14872 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 72:

CCAGTCACAA AGAAATTGAG CGCGTTCAGc TGAGGATGCA CTATGATGCA AGCTACATTT	60
CATTTGATGG GATATTAAGA AAGGAGATTT TCATGACACT TTTAGATGTA AAACACGTTC	120
AAAAAATTTA TAAAACACGT TTTCAGGGCA ACCAAGTAGA AGCCCTCAAG GATATTCAC	180
TTACCGTAGA AAAGGGTGAC TACGTTGCCA TCATGGGTGA GTCTGGTTCT GTTAAATCAA	240
CTCTTCTCAA TATTCTAGCT ATGTTGGATA AACCAAGTCG TGGTCAGGTT TACTTGAATG	300
GAACTGACAC CGCAACTATT AAAAATTCAC AGGCTTCTAG TTTCCGGCGT GAAAAGCTAG	360
GATTTGTCTT CCAAGACTTT AACTTGCTAG ATACTCTGTC TGTTAAGGAC AATATCTTGC	420

594

TTCCGCTTGT	CTTGTCAAGA	AGACCTATAA	CGGAGATGAT	GAAGAAATTG	GTGGTGACAG	480
CTGAGAATCT	GGGTATTAAC	CAATTGCAAG	AGAAGTACCC	TTACGAGATT	TCTGGTGGTC	540
AGAAACAGCG	TGTAGCAGTA	GCCCCGCCA	TCATCACAGA	ACCTGAAATT	CTCCTTGCGG	600
ACGAGCCAAC	AGGAGCCCTT	GATTCCAAGT	CATCTGCAGC	CTTACTTGAT	GTCTTTAATG	660
AAATCAATGA	GCGTGGGCAA	ACCATCCTCA	TGGTAACCCA	CTCAACAGCA	GCTGCTAGCA	720
GGGCCAAGCG	TGTTCTCTTT	ATCAAAGACG	GCATTCTTTA	CAACCAAATC	TACCGTGGAG	780
AGAAGACAGA	GCGTCAGATG	TTCCAAGAAA	TCTCTGATAC	CTTGACTGTC	ATGGCAAGCG	840
AGGTGAATTA	GTATGTTTCG	ATTAACCAAT	AAGTTAGCGG	TATCGAACTT	GATTAAAAAC	900
CGCAAACCTCT	ACTATCCCTT	TGCACTGGCT	GTTCTCTTGG	CAGTCACCAT	CACCTATCTC	960
TTTTACTCCC	TAACCTTCAA	TCCAAAGATT	GCGGAAATCC	GTGGAGGAAC	CACCATTCAA	1020
GCAACACTTG	GATTTGGTAT	GTTTGTCTGT	ACCCTTGCGT	CAcCATTATC	GTCCTCTATG	1080
CCAATAGTTT	TGTCATGAAA	AACCGTTCCA	AGGAACTGGG	TATATATGGC	ATGTTAGGCT	1140
TGGAGAAGCG	CCATCTAATC	AGTATGACCT	TTAAGGAGTT	AGTGGTATTT	GGGATTCTAA	1200
CTGTTGGAGC	GGGTATCGGT	ATTGGAGCCT	TGTTTGACAA	GTAAATTTTC	GCTTTCCTGC	1260
TCAAACATAAT	GAAACTGAAG	GTTGAGCTGG	TTGCTACCTT	CCAAATGAAT	GTTGTCATTG	1320
CAGTACTTGT	TGTCTTTGGA	TTGATTTTCC	TAGGCCTCAT	GTTCTCTGAAT	GCTCTTCGAA	1380
TCGCCCCGTAT	GAATGCCCTC	CAGCTCTCGC	GTGAGAAAGC	AAGCGGAGAG	AAAAGAGGTC	1440
GCTTCCTACC	TCTCCAAACG	ATTCTTG GTT	CCATAAGTTT	AGGGATTGGC	TATTATCTTG	1500
CCCTTACGGT	AACCGATCCT	CTTACAGCCC	TAACAACTTT	CTTCCTAGCT	GTTTTGCTGG	1560
TTATCTTTGG	TACTTATCTA	TTGTTTAATG	CAGGGATTAC	AGTCTTCCTA	CAAATCTTAA	1620
AGAAAAACAA	GAAATACTAT	TACCAACCTA	ATAACCTCAT	ATCTGTTTCC	AACTTGATTT	1680
TCCGTATGAA	GAAAAATGCG	GTTGGACTAG	CAACCATCGC	TATTTTGTCA	ACAATGGTTT	1740
TGGTAACCAT	GTCAGCAGCG	ACAAGCATTT	TCAATTCCGC	AGAAAGCTTT	AAAAAAGTTC	1800
TAAATCCTCA	TGATTTTGGG	GTTTCAGGGC	AAAATGTTGA	AAAAGAAGAT	TTGGACAAAC	1860
TCTTGAGCCA	GTTTGCAAGT	GACAAAGGTT	ATAGTGTCAA	AGAGAAAGAA	GTA CTTCGTT	1920
ACAGTAACTT	TGGTATTGCA	AATCAAGAAG	GAACCAAGTT	AACTATTTTT	GAAAAAGGAC	1980
AAAACCGTGT	CCAACCCACA	ACAGTTTTCA	TGGTATTTGA	CCAAAAAGAT	TATGAAAATA	2040
TGACTGGTCA	AAA ACTGTCT	CTATCAGGAA	ATGAGGTCGG	TCTCTTTGCC	AAAAATGACG	2100
GACTGAAAGG	ACAGAAAGCT	CTAACTCTAA	ATGATCATCA	ATTTTCTGTC	AAAGAAGAAT	2160
TTAATAAAGA	TTTCATTGTG	AACCATGTTC	CAAATAAGTT	TAATATCTTG	ACTACTGATT	2220

595

ACAATTACCT	TGTTGTTCCCT	GATTTACAAG	CCTTTTTTGA	TCAATTCCCA	GATTCGGCTA	2280
TCTATAATCA	GTTTTACGGT	GGTATGAATG	TAAATGTCAG	TGAAGAAGAA	CAACTCAAGG	2340
TCGCTGAGGA	GTATGAAAAC	TACCTCAATC	AATTTAATGC	TCAATTAGAC	ACAGAAGGTA	2400
GCTATGTTTA	TGGTAGCAAT	CTAGCAGATG	CTAGTTCTCA	GATGAGTGCC	CTCTTTGGTG	2460
GTGTCTTCTT	TATCGGTATT	TTCTTATCCA	TTATCTTTAT	GGTCGGAAC	GTTCTGGTCA	2520
TCTACTACAA	ACAAATTTCT	GAAGGCTACG	AAGACCGTGA	ACGCTTTATT	ATCTTGCAGA	2580
AAGTCGGTTT	GGACCAAAAG	CAAATCAAGC	AAACCATCAA	CAAACAGGTT	TTAACTGTTT	2640
TCTTCCTTCC	TTTGCTCTTT	GCCTTCATAC	ATCTCGCCTT	TGCCTACCAT	ATGCTTAGCC	2700
TGATTTTAAA	AGTGATTGGT	GTACTGGATA	CGACTATGAT	GTTGATTGTG	ACCTTGTCTA	2760
TCTGCGCTAT	CTTCCTCATC	GCCTATGTGC	TGATTTTCAT	GATTACTTCA	AGAAGTTATC	2820
GCAAGATTGT	GCAAATGTAA	AAAAGATACC	TCGACTTCAA	AATCGAGGTA	TTTCTTGTAT	2880
TCTAAATGCT	GAAAAGTTGT	CCGAGCAGGA	AGGTAACCTC	CATGGTCAAG	AGACCAATAG	2940
CAAGGTTCCG	AATCATAGCT	GTTTTGGTTG	GGGCTTTTCC	AAGTCTAGCA	CTTGTGTAAC	3000
CAGTGAGAAG	AAGGGCCACA	CCGACAATAA	GGACGGTAGC	AGGGATGCGG	TAATCACTTG	3060
GAAAAATGGT	CACTGACAGC	ATTGGAGGCA	AACTTCTAAG	GAAAAAGGCA	ACGAAGCTAG	3120
AAATGGCAGC	GTGCCAAGGA	TTGGTAAATT	CTTCATACTC	AATCCCATAT	TTTTCTCTCTA	3180
CCAGAGCCTT	GAGTGGATTT	TTAAGAAAGA	TCTTATTGGT	CAAGAGTTGG	GCAGAAGTTT	3240
TGAATTCTCC	ATTTTGGATA	TAAGCAGCAT	AGAGGGATTT	TTTGGCTAGT	TCCCTATCTT	3300
GGTCTAGCAA	GAGTTTTTCT	CGCGAAACGG	CAGCTTCCTC	GGTATCTTTT	GGAGTTGAAA	3360
CGGATACATA	TTCTCCACCA	GCCATTGAAA	AGGCACCAGC	TAAGATAGCC	GTAAAACCTG	3420
ATAAAAAGAT	AATCCAGATA	TTGGTCGTGG	CACTGGCAAC	TCCGATAACC	ACACCAGCAA	3480
TGGAAATAAT	TCCATCGTTA	GCATCAAGAA	CACCCGCACG	CAGGATATTT	AAACGACCTG	3540
CAAAATTTGA	ATCAATTTTCG	TGATTTGTTT	CTGACGCTAA	ATTTCAAGTT	CAAGTTAGCC	3600
ATCAAGAAGT	CTTCTCTGGG	TGACTTGTAG	TCCAAGCATT	TTTTAGGATA	GTTGTTAATC	3660
CACTTTTCGA	TGAATGCGAC	TTCTTTGGGA	GTCATTTTCT	TGGTTCCTTT	AGGTAACCAT	3720
CTACGAATGA	GCCTGTTGTG	ATTCTCATTA	GTTCCCCTTT	CCCAAGAGGC	ATAGGGATGT	3780
GCATAATAAA	TGTGCTCCTC	AGAAAATACA	TTAGACAAGC	GATTGAATTC	CGTTCCATTA	3840
TCTGCCGTGA	TGAAAAGAAT	CTTGTGTTGT	TTTAAGATGA	GTTTTAGAGC	CTGATTGACC	3900
ACATCAGCAC	TTTTATTTGG	AATCAATCGG	ATGATCTGAT	GTCTACTTTT	TCGATCCGTC	3960

596

AAGACAAGCA	AGCAGTAGTT	TTTCGCTCTC	GTAAGTAGAA	CTGTATCAAT	CTCATAATGC	4020
CCATTCTCCA	AGCGAAAATT	GATAGCTTCA	AGCCGCTGTT	CGATGGATTG	ACCAGCAGGT	4080
TTAAAGTTGG	TGCTGGCCTG	TTTCTTAAGC	GCTTTTCCTT	TTCTAGGGTA	AAGCAGATCC	4140
TGTTTGCTTA	ACCCCAATTT	TCCATGATGA	ATCCAATAGT	AAATGGTTGA	AATTCCCACG	4200
TTAACCCCTT	TAGCCATCAC	CATCATTTCA	GGCGAAAATT	TTTGGTTATG	ATAGTGGAGA	4260
ATCTTTTCCT	TTAGTTCCTT	GGTCAAGCTT	GATTTCTTGA	CCGAGCGCTT	GCGATTGTTT	4320
TCATAAGACT	GTTGAGCATA	GTCGGCAGAA	TAAACCTCTT	TGAAGCGCCC	TTTTCCAAGA	4380
CATTGTCGGA	CTGTCCCACG	CTTGATTTCA	GTGTGGATAG	TTTGAGGAAC	TTTTCCAAGC	4440
AGAGAGGCAA	TTTCTCTATT	TGATTTCCCT	TCTTTTTTCC	ATCTTTTCGAT	TAAGCGACGG	4500
CTATCGATTG	TCAAATGTTT	GCCTTTTGTA	GTATAATGGT	TTTGCATCTC	TGTGCCTTTC	4560
TTGTGTTTGT	GGTTGAACAA	CAAGTATAAC	ACAGAGGTGT	TTTCTTATGC	CTACAAGAGC	4620
TATCGGCTAG	TTGAACCATC	TAATTTTTAG	GAGGGCTGGG	TGGCTAACTT	CATTATAGAA	4680
CTTTCATTTA	CGAACATATA	GTAAAATGAA	ACAAGAACAG	AACAAATCGA	TCAGGACAGT	4740
AAAATCTATT	TCTAACAATG	TTTTAGAAGC	AGAGGTGTAC	TATTCTAGTT	TCAATCTATT	4800
ATATTTTTGT	TTTTTATCAA	AAAATACTTT	ACAAGTTCTT	AAAAACATGA	TATAGTAATA	4860
AAGCTTAGAA	AATGAGATGA	TGTTTTCTAG	CAAATATAAA	CCCGAGTAAA	AAATGCCTAC	4920
GGACAGGCAG	GGTTGAATGC	CGAAGCGTGG	TTGAAAAGCC	ACATTATTGA	TAGGGTTAAA	4980
AGCCTACTTT	TATAAGTTGA	TGTTAGGACA	CTTGTCCTAA	TTCATAAATT	TTTAGTGTGG	5040
TGAAAGCACA	CGTCATCTTG	TGAAACGATC	AATAAAGTAC	GTAATATTTG	CTACTAGAGA	5100
GTTAGGAAAC	ATCGGGAACA	GACATACTCA	ACAGAAACCA	AAATAAACAC	GTCAGAAGAT	5160
TGCAGAGCAG	GTGAAAACCT	GCTCTTTTTT	CATGAGTCAA	CCTTTAGTTC	CTTAGTTTTT	5220
ATAAGGTCCT	AAAAATATTG	AAAGGAGTAT	GTTTTGAAAG	AGTTAGATCA	AAACCAAGCC	5280
CCAATTTATG	AGGCCTTGGT	GAAGTTACGC	AAGAAAAGGA	TTGTTCCCTT	TGATGTTCCA	5340
GGTCACAAGC	GTGGACGGGG	AAATCCAGAA	CTTGTCGAAC	TCTTAGGAGA	AAAATGTGTA	5400
GGCATTGATG	TCAATTCGAT	GAAACCTTTG	GATAATTTAG	GCCATCCTAT	TTCGATTATT	5460
CGTGATGCAG	AGGAGCTGGC	TGCAGATGCT	TTTGGAGCTA	GCCATGCCTT	TCTAATGATT	5520
GGTGGAACAA	CTTCATCGGT	GCAGACTATG	ATTCTGGCAA	CCTGCAAGGC	AGGAGATAAG	5580
ATTATTCCTG	CACGAAATGT	CCATAAATCT	GCTATCAATG	CGTTGGTTCT	ATGTGGTGCC	5640
ATTCCCATCT	ATATCGAGAT	GAGTGTAGAT	CCTAAGATTG	GTATCGCTTT	AGGTCTTGAA	5700
AATGACCGAG	TAGCACAGGC	CATAAAGGAC	CATCCAGATG	CTAAGGCTAT	CCTAATCAAC	5760

597

AATCCTACTT	ACTACGGCAT	CTGTTTCAGAC	CTAAAGGGGT	TGACAGAAAT	GGCTCATGAA	5820
GCTGGCATGA	TGGTTTTAGT	AGATGAAGCC	CACGGAGCGC	ATTTGCATTT	CACTGATAAA	5880
CTTCCAATTT	CTGCTATGGA	TGCAGGGGCT	GATATGGCAG	CAGTTTCCAT	GCATAAGTCT	5940
GGTGGGAGTT	TGACCCAAAG	CTCCATTTTA	CTTATCGGGG	AGCAGATGAA	TTCTGAATAC	6000
GTTTCGTCAGA	TAATTAACCT	GACCCAGTCT	ACATCTGCCT	CTTACTTGTT	GATGGCTAGT	6060
TTGGATATTT	CACGTCGCAA	CTTGGCCCTT	CGTGGTAAAG	AGTCGTTTGA	GAAAGTCATT	6120
GAGCTATCTG	AGTATGCCCC	CCGTGAAATC	AATGCTATCG	GTGGCTACTA	TGCCTACTCA	6180
AAAGAGTTAA	TAGACGGTGT	TTCGGTTTGC	GATTTTGACG	TAAC TAAGCT	GTCAGTTTAC	6240
ACTCAGGGTA	TTGGCTTAAC	AGGTATCGAG	GTTTATGACC	TCTTGCGAGA	CGAATACGAC	6300
ATTCAGATCG	AGTTTGGTGA	TATCGGCAAT	ATCTTGGCCT	ATATTTCCAT	CGGCGACCGC	6360
ATCCAAGACA	TCGAGCGCTT	GGTTGGTGCT	CTGGCTGATA	TTAAGAGACT	CTATTCAAGA	6420
GATGGAAAAG	ATTTGATAGC	AGGAGAATAT	ATTCAGCCCC	AGTTAGTGCT	GTCTCCGCAA	6480
GAAGCCTTCT	ATTCAGAAAAG	AAAAAGTTTA	ACTTTGGATG	ATTCTGTTGG	ACAGGTCTGT	6540
GGAGAATTTG	TTATGTGTTA	CCCTCCAGGT	ATTCCTATCT	TGGCTCCTGG	TGAACGCATT	6600
ACACGAGAAA	TTGTCGACTA	TATCCAATTC	GCCAAGGAAC	GTGGTTGCTC	CCTCCAAGGG	6660
ACGGAAGATC	CAGAGGTCAA	TCATATCAAC	GTTATTAAGA	GAAAGACAAA	CTATAAGAAA	6720
AGTCAATAGT	TTTATCTAAA	CTATTTCTTA	TTTCAATTTG	ATGATTTGGC	GATGATTTTA	6780
GAGCACGGCA	AAAAGCCCTT	GAATTAGAAG	CGGTCAATCG	CTTAATTTCT	ATCAGCTTAT	6840
CAAATCCTGC	CTCAAGCCTT	TTCTGAGGAT	TAGGGTAGCG	TGTCAAGAGT	TGGTAGGTAT	6900
ATTCTGAATG	CTTTCCAACG	ATTTTATCCA	ACTCAGGAAA	GATGATATCA	AGACAACGAG	6960
TGTATTGTAC	TTTCCAATCA	GACTGTTTTT	TCTTGAGACG	ATGAATATGT	CTAGCCAGTA	7020
TTTTTAGTTC	TACTTGCCGA	TTATCGTGTT	GAAATTGTTC	ACGATTGGGG	TCAGAAAGAA	7080
GTTTAAGAGC	GATGCCATGA	GCGTCTTTCT	TATCCGTTTT	AGTTTTGCGA	AGTGATAATG	7140
ATTTGGCAAA	TTTCTTGATG	AGCAAAGGAT	TGTAGGTGTA	AACTTTATAT	CCTTGTTTCAT	7200
GCAGGAAGTT	CAGTAGATTA	AAGGCATAAT	GTCCGGTATT	TTCAAGAGCG	ATGAGACAGT	7260
CTTGGTTGAG	CTGTCGAAGA	GACAGATCTA	AGAGTTCAAA	ACCAGCTTTA	TTATTTGAAA	7320
AAGTGAGTGG	TTTAAGAACA	GTTTTTCCTG	GAACATTCAA	GGCTGTAACA	TCGTGTTTAT	7380
TTTTAGCGAC	ATCAATGCCC	ACATAAAGCA	TGGGAGTATC	TCCAGATATA	GTATTTCAAG	7440
TCTACTGGGT	TATCCACGAA	CTTTTTGCCT	TGTTACCTTA	GACGAGATAA	AACGTCTATG	7500

598

CGTTATCAAA	CTCATTACCA	ATTGAAACAA	AAAACGTGTGG	TTAGAGCCTT	TCGGAAATCG	7560
TCAAGCGATT	GGAGGAAATG	AACTAATCCA	CAGTGGCTTA	TTCCAAGTAT	ACCACTTGGG	7620
CTTTGGCAGT	AGCTAACTGC	GCTAAATATA	ATATAAGGAG	AAATAGATGG	ATTTATGGTT	7680
TTCTGAAGTT	CATACTCCAG	ATGTCAAATT	GTCTCTGAGA	ACAGCCAAGC	AACTTTACGC	7740
TGGAAAAAGT	GAATGGCAGG	ATATCGAAGT	CTTGATACG	CCAGCTTTTG	GGAAAATACT	7800
GATTTTAAAT	GGCCATGTCT	TGTTCTCAGA	TGCGGATGAT	TTCGTCTACA	ATGAAATGAC	7860
CGTTCACGTT	CCCATGGCTG	TCCACCCAAA	TCCAAAGAAA	GTATTGGTTA	TTGGGGGTGG	7920
TGACGGCGGT	GTTGCCCAAG	TATTAACCCT	CTATCCTGAA	CTGGAGCAAA	TTGATATTGT	7980
GGAACCGGAT	GAGATGTTGG	TCGAGGTCTG	TTCGTGAGTAT	TTCCCAGACT	TTGCTGCAGG	8040
GCTAGATGAT	CCTCGTGTTA	CCATTTACTA	CCAAAATGGG	CTACGCTTTT	TGCGAAACTG	8100
CGAAGATGAT	TACGATATTA	TCATCAACGA	TGCGACAGAT	CCATTTGGCC	ATACGGAAGG	8160
ACTCTTTACC	AAGGAATTCT	ACGGCAATAG	TTATCGAGCT	CTGAAGGAAG	ACGGCATCAT	8220
GATTTACCAG	CATGGGAGTC	CCTTCTTTGA	CGAGGATGAG	TCGGCCTGCC	GAAGCATGCA	8280
CCGCAAGGTC	AATCAAGCCT	TTCCAATCAG	TCGGGTTTAT	CAGGCCCATATA	TTCCAACCTAG	8340
CCCAGCTGGC	TATTGGTTGT	TTGGATTTGC	ATCGAAAAAA	TACCACCCTG	TCAAAGATTT	8400
TGACAAGGAA	GGCTGGAAAA	AACGCCAGCT	TTTCACAGAA	TACTACACTG	CAAACCTACA	8460
CGTGGGAGCC	TTTATGTTGC	CCAAGTATGT	TGAGGACATT	TTAGAAGAAG	AGGAAGGAAA	8520
AAAATGAGTC	GTTTACTAGT	TATTGGTTGT	GGGGGCGTTG	CCCAAGTTGC	TATTTCAAAG	8580
ATTTGTCAAG	ATAGCGAAAC	ATTTACAGAG	ATTATGATTG	CTAGCCGTAC	CAAGTCAAAA	8640
TGCGATGACT	TGAAAGCGAA	GCTAGAAGGC	AAAACAAGTA	CTAAAATTGA	AACTGCAGCA	8700
CTTGATGCTG	ACAAGGTGA	AGAAGTGATT	GCCCTGATTG	AAAGCTACAA	ACCAGAAGCT	8760
GTTTTGAATG	TAGCTCTGCC	TTATCAAGAT	TTAACCATTA	TGGATGCTTG	TTTGGCAACA	8820
GGTGTTCACT	ATATCGATAC	AGCCAACTAC	GAAGCAGAAG	ACACAGAAGA	CCCTGAGTGG	8880
CGTGCTATCT	ACGAAAAACG	TTGTAAGGAA	CTTGGTTTTA	CAGCCTACTT	TGACTACTCA	8940
TGGCAGTGGG	CTTATCAAGA	GAAATTCAAA	GAAGCAGGCT	TGACTGCTCT	TCTTGGTTCT	9000
GGTTTTGACC	CAGGTGTAAC	TAGTGTCTTT	TCAGCTTATG	CCCTCAAACA	CTATTTTGAT	9060
GAAATCCATT	ATATCGACAT	TTTAGACTGT	AATGGCGGTG	ACCACGGTTA	TCCATTTGCA	9120
ACCAACTTTA	ATCCAGAAAT	TAATCTCCGT	GAGGTTTCTG	CGCCAGGTTT	TTACTGGGAA	9180
GATGGGAAAT	GGGTCGAAGT	CGAAGCTATG	TCTATCAAGC	GTGAGTATGA	TTTCCCTCAA	9240
GTTGGACAAA	AAGATATGTA	TCTCCTTCAC	CATGAAGAAA	TCAATCATT	GGCCAAGAAC	9300

ATTCCAGGTG	TCAAACGCAT	TCGTTTCTTT	ATGACTTTTG	GTCAATCTTA	CTTGACGCAC	9360
ATGAAATGTC	TTGAAAATGT	TGGACTCCTT	CGTACGGATA	CCATTAACCT	TAACGGCCAA	9420
GAAATTGTTC	CAATTCAATT	TTTGAAAGCC	TTGCTTCCAG	ATCCTGCCAG	TCTTGGGCCA	9480
CGTACAGTCG	GAAAAACCAA	TATTGGATGT	ATCTTTACAG	GTGTCAAAGA	CGGTGTCAAA	9540
AAGACTATCT	ATATCTACAA	TGTCTGCGAC	CATCAGGAAT	GTTACGCAGA	GGTTGGTTCG	9600
CAAGCTATTT	CTTATACGAC	AGGAGTTCCA	GCCATGATTG	GGACAAAATT	AGTCATGAAC	9660
GGAAGTTGGA	AACAAGCTGG	AGTGTATAAC	CTTGAGGAGT	TAGATCCAGA	TCCATTCATG	9720
GAAGCTTTGA	ATGAGTATGG	TTTGCCATGG	GTTGTGGTTG	AAAATCCACA	AATGGTGGAC	9780
TAATGAAGTT	AGAACAAGTA	CCAACACCAG	CCTATGTTAT	TGACTTGGCC	AAGTTAGAAG	9840
CTAATTGCCG	CATTCTACAA	TATGTACAAG	AAGAGGCCGG	TTGCAAGGTC	TTGCTTGCCC	9900
AGAAGGCATA	TTCCCTCTAC	AAAACCTTATC	CCTTGATTAG	CCAGTATCTA	TCAGGTACGA	9960
CAGCTAGTGG	ACTCTATGAG	GCCAAATTGG	CAAGGGAAGA	ATTTCCCTGGT	GAAGTCCATG	10020
TATTTGCGCC	TGCTTTCAAG	GATGCAGACT	TGGAGGAATT	GCTAGAGATA	ATGGACCATA	10080
TAGTCTTTAA	CTCAGAGAGA	CAGTTGCGTA	AACACGGTCC	GCGTTGTCGA	GAGGCTGGTG	10140
TCAGTGTTGG	TTTGCGCCTC	AACCCTCAGT	GTTCAACTCA	AGGcAGATCA	CGCGCTCTAT	10200
GACCCTTGTTG	CACCAGGTTT	TCGCTTTGGA	GTTACTATAG	ACAAGATTCC	GAGTGATTTG	10260
CTAGATTTGG	TTGACGGACT	TCATTTTCAT	ACCCTTTGCG	AGCAGGGAGC	AGATGATTTA	10320
CAAACAACCT	TGAAAGCAGT	AGAAGAACAG	TTTGGTCCCT	ACTTACATGA	GGTAAAATGG	10380
CTCAATATGG	GTGGTGGTCA	TCATATTACA	AGAGAAGGTT	ACGATGTGGA	TTTGCTGATT	10440
TCAGAAATCA	AGCGTATCCG	AAAAACTTAC	AATCTTGAAA	TCTATATCGA	GCCTGGTGAA	10500
GCCATTGCGC	TTAATGCGGG	TTATTTAGCA	ACTGAGGTAT	TAGATATTGT	AGAAAACGGT	10560
ATGGAAATCT	TGGTTTTAGA	CGCCTCTGCG	ACCTGCCATA	TGCCTGATGT	ACTTGAGATG	10620
CCCTATCGTC	CACCTTTGAG	AAATGGCTTT	GAGTCACAGG	AAAAAGCCCA	TACCTACAGA	10680
CTTTCTTCTA	ATACCTGTCT	GACGGGCGAT	GTGATTGGTG	ATTATAGTTT	TGAAAATCCA	10740
GTCCAAATCG	GAGACAGACT	TTATTTTCAA	GACATGGCCA	TTTATTCTTT	TGTCAAAAAT	10800
AATACCTTTA	ATGGTATTGG	ATTGCCAAGT	CTCTATCTCA	TGGACGAACA	GGGAGACTGT	10860
AGCTTACTCA	AAGCTTTTGG	CTATCAAGAC	TTTAAAGGGA	GATTATCATG	ATGGACAGTC	10920
CAAAAAAATT	AGGCTATCAC	ATGCCAGCAG	AGTACGAACC	CCATCATGGT	ACCCTCATGA	10980
TATGGCCGAC	TCGACCAGGA	TCATGGCCTT	TTCAAGGAAA	GGCTGCTAAA	AGAGCATTTA	11040

600

CTCAGATTAT	CGAGACCATA	GCAGAAGGGG	AAAGAGTCTA	TCTTTTGGTG	GAGCAGGCCT	11100
ATCTATCTGA	AGCCCAATCC	TATCTTGGAG	ACAAGGTTGT	TTATTTAGAC	ATTCCCACCA	11160
ATGATGCCTG	GGCGCGTGAT	ACTGGCCCCA	CCATTCTCGT	CAATGATAAA	GGTAAGAAAT	11220
TAGCCGTGGA	TTGGGCCTTC	AATGCTTGGG	GAGGCACCTA	TGATGGTCTT	TATCAAGATT	11280
ATGAAGAGGA	TGACCAAGTA	GCCAGTCGTT	TTGCTGAGGC	CTTGAAAGG	CCTGTCTATG	11340
ATGCTAAACC	TTTTGTACTG	GAAGGAGGCG	CAATCCATAG	CGATGGTCAA	GGAACATTC	11400
TCGTAACTGA	AAGTTGCTTG	CTTAGTCCTG	GTCGCAATCC	TAAC TTGACT	AAAGAGGAGA	11460
TTGAAAACAC	ATTATTAGAA	AGTCTTGGTG	CTGAAAAAGT	TATTTGGCTT	CCTTATGGTA	11520
TTTATCAGGA	TGAAACCAAT	GAACACGTCG	ATAATGTTGC	TGCCTTTGTT	GGTCCTGCTG	11580
AGCTTGTTTT	GGCTTGGACA	GATGACGAAA	ATGATCCCCA	GTATGCCATG	TCAAAAGCAG	11640
ATCTCGAACT	CTTAGAACAG	GAAACAGATG	CAAAAGGTTG	TCACTTCACC	ATTCATAAAT	11700
TGCCTATCCC	TGCAGTTCGA	CAAGTTGTGA	CAGAAGAAGA	TTTGCCAGGC	TACATCTATG	11760
AAGAAGGAGA	AGAAAAGCGA	TACGCAGGTG	AACGACTAGC	AGCTTCCTAC	GTAAACTTTT	11820
ATATCGCCAA	CAAGGCTGTC	TTGGTTCCAC	AGTTTGAGGA	TGTAAACGAC	CAAGTGGCCT	11880
TAGATATCCT	CAGCAAGTGT	TTCCCAGACC	GTAAAGTTGT	CGGAATACCA	GCCAGAGATA	11940
TTCTCTTAGG	TGGTGGCAAT	ATCCACTGTA	TCACCCAACA	AATTCCAGAA	TAGGAGAAAA	12000
AGATGAGAAA	TGTAAGAGTT	GCAACCATTC	AGATGCAATG	CGCTAAGGAT	GTGGCAACAA	12060
ATATCCAAAC	CGCAGAGCGT	TTAGTACGTC	AGGCTGCTGA	GCAAGGAGCC	CAAATTATTC	12120
TCTTGCCCGA	GTTGTTTGAA	CATCCCTATT	TCTGTCAGGA	ACGTCAGTAT	GA CTACTACC	12180
AGTATGCCCCA	ATCTGTAGCG	GAAAATACTG	CCATTCAGCA	TTTTAAGGTG	ATTGCTAAGG	12240
AACTACAAGT	TGTTTTACCA	ATCAGTTTCT	ATGAAAAAGA	TGGTAATGTC	TTGTATAACT	12300
CTATTGCCGT	CATTGATGCA	GATGGGGAAG	TGCTGGGCGT	TTATCGAAAG	ACCCATATAC	12360
CAGATGACCA	TTATTATCAA	GAAAAATTCT	ATTTACAGCC	TGGTAACACT	GGTTTCAAGG	12420
TCTGGAATAC	TCGCTATGCT	AAGATTGGTA	TCGGTATCTG	TTGGGATCAA	TGGTTCCCTG	12480
AAACAGCGCG	CTGTCTTGCA	TTGAATGGTG	CTGAATTGCT	CTTTTATCCT	ACAGCTATCG	12540
GTTTCAGAGCC	AATTTTGGAT	ACAGATAGTT	GTGGTCACTG	GCAACGTACT	ATGCAAGGGC	12600
ACGCAGCAGC	GAATATTGTT	CCAGTCATCG	CAGCCAATCG	TTATGGTTTA	GAGGAGGTTA	12660
CTCCTAGTGA	GGAAAATGGC	GGACAGAGCT	CCAGTCTTGA	CTTCTACGGT	TCCTCCTTTA	12720
TGACGGATGA	AACAGGAGCT	ATTCTAGAAC	GAGCTGAAAG	ACAAGAAGAA	GCTGTTCTGT	12780
TAGCTACTTA	TGACCTAGAC	AAGGGAGCAA	GTGAACGCCT	AAACTGGGGC	TTGTTTCGAG	12840

601

ATAGAAGACC	AGAAATGTAT	AGACAAATTA	CAGATTAGTG	TGGGAGAAAT	GAGAGATTCA	12900
TTCTGCTAGA	CTAACTTCTT	ATTAGTAACT	ATAAGATACT	ATGGCATCTA	GTAAATCGAT	12960
TTTTATGATT	CGCTATTCTT	GTCTATTGAT	TAGTCCGTAT	TTTAAATAT	TAGCAAAAAA	13020
GCAAATAGCA	GTAACCTCTG	TCTATTTGCT	TTTCTTTTTT	ATAGAATATA	TTTCTCAATA	13080
GCACGCGCAA	CGCCGTCTTC	TTCGTTGCTT	GAGGTAACGG	CATCCGCAAG	AGATTTGATA	13140
TAATCGCTGG	CATTTCCCAT	TGCAATCCCA	AGCCCTGCAA	ACTGGAGCAT	TTCGATATCG	13200
TTATTAGCAT	CGCCCATGGC	CATAATCTCT	GAGGAATCAA	TCTTCAAAAT	CTCAGCTAGT	13260
CGTGAAAGAG	CAGTAGCCTT	TGTCGTTCCA	AGCGGCATTG	CTTCATAAAT	GACAGGCTGC	13320
GAACGAACTC	CACTGAATCG	TTGGCAAAGC	TCTTCAGCAA	AACGCTGCTC	AAAATCGTCT	13380
GTTTGTTCCT	TTGTTCCTAA	ACACATACCT	TGGAACATCC	GGAACCTTCC	ACTAGTCGCT	13440
TCTTCAAGAG	AAATTTTCAGT	CAGGTCTGAA	AATACTAGTT	TAGCATCATT	TTCAATAACT	13500
TGATTGGGCT	TGTCACCGAG	AACAAAATAA	TGTGACTCGT	CAAAAAGTGT	CAACTGAACA	13560
TCACTCTTTT	CAGCAAGGTC	ATAGAGGTAT	TCGATGTCAG	CTGGACTCAG	TTCTTTCCAG	13620
TCAACTAGAC	TCCAATCACT	GGTCTGGTGA	GTTGAACAAC	CGTTGTTAAC	AATAATATAT	13680
TCGTTC TGGA	GGTCAAGCTC	CAGTTTTTTG	TAGTAGGGGA	GGACACCGAA	AAGGGGGCGA	13740
CCCGTACAGA	GAACCAGTTT	GACACCTTTT	TCAATGGCTT	TGTGAATAGC	AGTAATGTGT	13800
GCTTGTGGGA	TTTCCTTGGC	TTCAATTGAGG	AGGGTGCCGT	CCATATCCAA	GGCTAGTAGT	13860
TTAATCATAG	GTCTTCCTCT	TTATCTTTGC	TATTATTATA	GCATATTTTG	GAGAAGAAAT	13920
TGATAGAAAG	CTTGAGACTA	ATTGATTTTA	TAGTTTAAGA	TGTTTTGATG	ACAATTCATG	13980
ATTTGAAGAG	GATATTTTCGC	AAAGATATGC	TATACTATGT	TTGTCAATGT	TGCAACTAGA	14040
CAAATTAATA	AACCAACTTA	ATATAATAGT	TTTTTTGTAA	GTAGGTATGA	GTAGCAGATT	14100
ACTCAACTAA	TCTGAAGAAT	AATGGAGGAA	ATATATCATG	ATTTTAATGA	CAAAAAATAT	14160
AAATCTAACA	AATGAAGAAT	TAGAGCTGAT	ACAAGGTGGA	GCAGATCCAT	ATGGTAAAAA	14220
TCCTAATGGT	AGGTACGATT	GGGAAATAGA	ACCAGTATTA	ACTCTGCTGG	TTCATGGATT	14280
TTGTCCCAGA	GGCACCTATG	ATTCAGGATA	TATTGGAGGA	GGTAATCATC	TTTGCAAAGG	14340
AAGTGCTGCG	AGATTTTAAG	TAAAATTTAT	TAGGAATATG	AAGAAACAAG	GGGAGAAAAC	14400
AGAGGATTTA	ATATGAAAAA	ACGAGCTATT	CAAATTTTAC	TAGCATTGTC	CTTAATTTTT	14460
TACAAATCAA	CTTGGTTTTG	GAGGCTTTTC	AATTATCTCG	CAAAGCCCTA	TCTACCAGCA	14520
AGTCGTGAAT	TTTTTCAGAT	TCTGCTTTTG	ATGGAGAGCG	GAGTTCCTTT	CTTAGCGGTC	14580

602

ATCTATCTAC	TGGTTTTTGC	AGGAAAGAAA	ATTTTTTCATT	TCAAGTGGCA	GCTGAGGTAC	14640
TTCATCTACC	TTTTACTGGG	CTACATCATT	TCATATATGT	CTGACTTCCT	CTTTTCGTAT	14700
TTCATATCCC	TGTCTTCAAA	TCAGATTTCT	TTGAATGAAA	CGGTAGAAAT	GATGGGGAGA	14760
CAGGAGTTCC	CTTATGTCTT	GCTCATCGTT	TGCTTCATCG	CCCCTATTGC	TGAGGAATTG	14820
ATTTATCGAG	GtGTGCTTAT	GACAACCTGT	TGCAAAACT	CACCTTGGTA	CG	14872

(2) INFORMATION FOR SEQ ID NO: 73:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10223 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 73:

CGTGCTATCG	GTCTCAAAAC	CAATCTGGTC	GCTATGGTCA	AATCCAGTTG	GAAAATCCAT	60
TCTTCTTGGG	GCCATCTGCT	GGATTGCCAT	CATCCTCACC	ACTCTTGGTA	TGCAGACCCT	120
TATCGGCATT	TTCTAATACT	CTTCGAAAAT	CTCTTCAAAC	CACGTCAACG	TCGCCTTGCC	180
GTAGGTATAT	GTTACTGACT	TCGTCAGTTC	TATCTGCAAC	CTCAAAACGG	TGTTTGAGCT	240
GACTTCGTCA	GTTCTATCTG	CAACCTCAAA	ACGGTGTTTT	GAGCTGACTT	CGTCAGTCGT	300
ATCTACAACC	TCAAAACAGT	GTTTTGAGCT	GACTTCGTCA	GTTCTATCTG	CAACCTCAAA	360
ACAGTGTTTT	GAGCAGCCCG	TGGCTAGTTT	CCTAGTTTGC	TCTTTGATTT	TCATTGAGTA	420
TAACACAAAA	GGTAGCCCAT	CAGCTACCTT	TTTCTTATGC	TTCCTCAATC	AAGCGAGTAT	480
GTTCTCTCTT	GATACAGCGA	TTCATCACGA	TATCATCACA	TCCACCATCA	CGCAAAATCT	540
CTTTCGCTTC	TAAACTTTCA	AGTCCTAGCT	GTGCCCCAAA	AATCTTGGCA	TCAGCTTTGA	600
GAAAATCACG	CGCCACATCG	GGCAGAAATT	CACTGCGACG	ATAAACATTG	ACAATATCTA	660
CAGGAAAAGG	AATTTTCAGCG	AGGCTAGCAT	AAGCCTTTTC	ACCCAAGATT	TCGCCACCTG	720
CCGCCTTGGG	ATTGACTGGG	ATGATTTTAT	AGCCCCGAGC	CTGCATTTCC	TTTGTTACTC	780
GATTGCTGGT	TGTTTCTTCA	CGGTCAGACA	AACCCACCAC	AGCAAGGGTT	TTACTCGTTG	840
CGAGATACTG	ACGAATCACG	CCATCACTTG	GATTGATAAA	TTCTTGACTC	ATAGAAATCC	900
TCCTTTTTCA	TCAGTATAGC	ACATTTTGAA	AAGGTTTGCA	GAATTATACT	ACAAAAAAGG	960
AGGACTAGCC	CCCTTTTTAT	TTAGCCTCGT	ACCAGGTTGC	CCCTTCATTC	TCATCTGCGA	1020
TAAGAGGAAC	ACTGAGTTGA	ATGGCTTCTT	CCATGGTTTG	TTTCACCAAT	TTTTTCATCT	1080
CTACCAATTC	AGATTTAGGC	ACTTCAAGGA	CGATTTTCATC	GTGCACTTGT	AACAGCATCT	1140

603

TAGTCTGATA	ACCACCTGCA	ACCAAGGCTT	TATCCAGCTG	AATCATGGCA	ATCTTGAGAA	1200
TATCTGCTGC	CGAACCCTGG	ATAGGTGAGT	TGATAGCAGT	TCGCTCCGCA	AAACCACGAA	1260
TATTGAAGTT	GCGCGAATTG	ATATCTGGCA	ACTCACGGCG	ACGCTTAAAG	AGGGTCTCTA	1320
CATAGCCCTT	ATCACGCGCC	TCCCGCACCA	CTTCATCCAT	GTAGTTTTTA	ATACCTGGAA	1380
AACGTTCAAA	GTAGGTATCA	ATGTAGGCTT	TGGCTTCCTT	ACGACTAATT	CCCAAATTAT	1440
TAGACAAGCC	AAAGTCTGAA	ATCCCATAAA	CCACTCCAAA	GTAACTGCC	TTGGCATTGC	1500
GACGGTCGTT	TGCAGTCACA	TCATCAGGAC	GCTCAATGCC	AAAGACCCGC	ATGGCTGTCTG	1560
AAGTATGGAT	ATCTGCCCCC	TCTTGGAAGG	CCTTAATCAA	GTGCTCATCC	TTAGAAATAT	1620
GCGCCAAAAC	GCGCAATTCA	ATCTGTGAAT	AGTCAGAGCT	GAGTAGCACA	CTATCCTCCC	1680
ACTCTGGCAC	AAAAGCCTTC	CGAATCAAGC	GCCCCTGTTT	CAATCGGGCA	GGAATATTTT	1740
GCAAGTTTGG	ATCCACACTA	GACAAACGCC	CGGTCTGGGT	CAAATCCTGC	ACATAGCGAG	1800
TATGAATCTT	TCCATCAGCC	AAAATCCAGT	CCTGCAAGCC	AATTACATAA	GTAGATTGAA	1860
TCTTAGCAAT	TTGACGGTAA	TCCAGGATTT	TCTTAACAAT	CGGAGCAATA	GGAGCGAGAC	1920
GCTCTAAAAC	ATCCACTGCT	GTCGAATAAC	CTGTCTTGGT	TTTCTTAGTG	TATTCTAGAG	1980
GAAGTCCCAA	TTTCTCAAAG	AGAAGCACGC	CCAAC TGCTT	AGGCGAGTTG	ACATTAAACT	2040
CCTCACCAGC	CAGCTCGTAA	ATCTCTTGAG	TCAGTTTTTC	AATGACAAGC	TCATTTTCAG	2100
CCTGCATCTC	AAGCAAGGTC	TCTTTCTTGA	CCATAATCCC	AGCAATTTCC	ATCTTGCGAA	2160
GGACAAAAGC	CAGAGGTTGC	TCCATATCAT	AAAGAAGCTC	TAATTGCCCA	TTTTCGCTGA	2220
GTTTTTCAAG	TAAAATAGGC	TCTGTTTCTA	CCAAAACAGC	AAGTTTACAA	GCTAAGTGTT	2280
CCAAGAATTT	CTCACGTTCA	GGAATGGCCT	TTTTAACACC	CTTACCGTAG	AAAGTTTCAT	2340
CATCAACCAA	GTAAGTCTGA	CCATAAAGAC	TAGCGATGGT	CGCAATTTCA	TTGTCCTCCA	2400
CAGTCGAAAG	GAGGTATTTA	GCCAAACGGA	TGTCAAAAGC	AGGCGCCTGC	AAATCCACAC	2460
CAAAACGTTG	CAAAAGAACT	TTAACCTTCT	TAAAGTCATA	AACTCTCAGA	GATGTTTTTT	2520
CTAAGAAATC	CTTGAAAATC	GGGTCTTGCA	ACAGCTCAAG	CTTGTCTGTG	GCATAGAGCT	2580
TATCCCCACA	AGACCAGACA	AATCCAACCA	AATTATCCGT	ATGGTAATTC	TCACCAAAAA	2640
GCTCAAAGTG	GAAGATAGAC	TCTTCACTCA	GCATATCTTG	ACTGATTTGG	TCAACAATAG	2700
TAAAATCCAA	ACTCTCAGAC	ACATCAGCTG	ACGACACATT	TAAAGCCTGC	TTTAGCTGTT	2760
TGAAGCCCAT	CTCATCGTAG	AATTTCCCAA	GATTTTCAAC	ATCTGGACCA	CTATAGACCA	2820
AGTCCTCTAA	ACCAATCGCA	ATCGGTGCCT	TGGTATCAAT	GGTCGCTAGT	GTTTTAGACA	2880

604

AAAAGGCCTG	TTCCTTGTCA	TTGATGAGAT	TTTCCTTCAT	CTTAGAAGTC	TTCATTCCAT	2940
CAATATTTTC	ATAAATCCCC	TCAAGCGAAC	CATGCTCCAG	CAAGAGCTTA	ATACCCGTCT	3000
TTTCACCGAC	TTTGGTCACC	CCAGGGATAT	TATCCGACTT	ATCACCCATG	AGCGCCTTGA	3060
GATCGATAAA	CTGAGCTGGT	GTGAGGCCCA	TTTCTTCCAT	GAGGTAATCT	GGCGTAAAGG	3120
CCTCAAACCTC	AGCCACACCT	TTCTTGAAAA	TTTCAACCAC	CGTATGCTCA	TCCGTCAGCT	3180
GAATCAAATC	CTTGTCCCCA	CTGACAATAG	TAATATCAAA	ACCATCCTGC	TCTGCTAGCT	3240
TATCCAGCGT	CCCAATGATG	TCATCCGCCT	CATACTGAGC	CAGATCATAG	TGACGAATCC	3300
CCATATGATC	CAGCAACTCA	CGAATGAAAG	GAAATTGCTC	ACGAAACTCA	TCAGGAGTCT	3360
TGGCCCGACC	ACCCTTATAG	TCCGCATACA	TCTCTGTCCG	GAAGGTCGTC	TTCCCCGCAT	3420
CAAAAGCCAC	CAAAATATGA	CTCGGCTCAA	CCCGCTCCAA	TAAATGACTC	AACATCAACT	3480
GAAAACCATA	AATCGCATTG	GTATGCAAAC	CAGCCACATT	CTTAAAACGG	TCCAACCTGCT	3540
GATACAGCGC	AAAAAACGCC	CGAAAAGCTA	CAGAAGACCC	ATCAATCAAT	AATAATTTTT	3600
TCTTATCCAT	ACACCCATTA	TAAAGGAAAG	AATCAAAAAA	TACCATTGGG	AAGAGCTAGA	3660
GCAAGTATTT	TTCAAACTTT	TTCCGAATAA	ATAGATAGAG	CCAGAGAATT	TAGTAAACCT	3720
AGATTTAAAA	ATGTGCTATA	ATATAGTATA	TTGAATCTAT	AATAGTACAC	CTTGACTGCT	3780
AAAATATTTT	TATAAATTAA	TTTGACTTTC	CTGATAGAGT	TATTCACATC	TTATTTCAAC	3840
TCACTATAGA	AGGAGGAATA	GGAGGATTCT	CAGACATCCG	GGCATCAGCC	CAACTAATGA	3900
TTTGATTGCT	AAGAAAATAT	TCAGCAATCC	AGAAATCACT	TGTCAATTTA	TTGCGGATAT	3960
GCTGGACTTG	CCAGCAAAAA	ATGTGACCAT	TTTGGAGGGA	AGCGATATTC	ACGTATTACT	4020
CTCCATGCCT	TACTCGGTGC	AGGATTTTTT	TACCAGTATA	GACGTCCTTG	CGGAGTTGGA	4080
TAACGGTACT	CAAGTAATTA	TTGAGATTCA	AGTCCATCAT	CAGAATTTTT	TCATCAATCA	4140
CTTGTGGGCT	TACCTGTGCA	GTCAGGTTAA	TCAAAATCTT	GAAAAAATTC	GTCAGCGAGA	4200
AGGTGATACT	CACTAGAGCT	ACAAACACAT	CGCTCCTGTT	TACGCCATTG	CTATCGTGGA	4260
TAGTAATTAT	TTCTCAGATG	ACCTGGCTTT	TCATAGCTTT	AGTATGCGCG	AAGACACAAC	4320
AGGTGAGGTA	TTGGCGATTA	CCAACAATGG	ACAGGAAAAC	CATCTGGTTA	AGATGGCATT	4380
CTTGGAATTA	AAAAATACAG	AGAAACCAGC	AAAGACAAGG	TTGCAAGGCC	ATGGTTGGAG	4440
TTTTTTCGGCA	ACAAGCCCTT	TACCCAGCAA	CCGCAACGAG	CCATTACCCA	AGCAAATCAA	4500
CTGCTGGACT	ACAAGAGCTG	GTCCGAGGAG	GACAGGAAAA	TGTTTAGTCA	ACTACATATG	4560
CGAGAAGAAC	AAGTCTTGTT	AGCACAGGAC	TATGCCTTGG	AAACTGCTAG	GGCTGAAGGC	4620
CTTGAACAAG	GACTAGAGCG	TGGGAAAGTT	GAAGGAAGGG	CAGAAAGGAA	ACTTTTTGCC	4680

605

TTCCTAGACA	TAGTACGCCA	AGGTCTTCTG	ACTTCTGAGG	TTGCCAGCCA	GCAATTAGGT	4740
ATGTCAGTAT	CTGAATTTGA	GGCACTGTTG	TAAAATGGCT	CCATAATATC	CATAGTGGGT	4800
AAATCCCCTA	TGGATATTAT	GGAGCCTATT	TTGTGTAGAA	AAAAAGTCCC	ATATGACCTA	4860
TAATGAAAAG	CGACAAAACA	ACTCATTAGA	AAGAATCATA	TGGAACAATT	ACATTTTATC	4920
ACAAAATTAC	TAGACATTAA	AGACCCTAAT	GTCCAGATTT	TAAACATCAT	CAATAAGGAT	4980
ACACACAAGG	AAATCATCGC	CAAACCTGGAC	TACGACGCCC	CATCTTGCCC	TGAGTGCGGA	5040
AACCAATTGA	AGAAATATGA	CTTTCAAAAA	CCTTCTAAAA	TTCCTTATCT	TGAAACGACT	5100
GGTATGCCTA	CAAGAATTCT	CCTTAGAAAG	CGTCGATTCA	AGTGCTATCA	CTGTTCAAAA	5160
ATGATGGTCG	CTGAAACTTC	TGATGACGTA	CAGTCATATT	TCTTCTCTTT	TTATTATATC	5220
ACAGTTTTAA	ATCTAGCTTT	ACTAGATTCA	CCGCTACTAT	CTATTTATTC	GGAAAAAAGA	5280
CGAAAAAACC	TGAGAATCAT	CTCAGGCTTG	GTCATTAAAT	TTTTTTCTCA	ATATCGAAAA	5340
GTGGAGAAAG	TGGTCGTTTT	TCATGAATAC	GTACGATAGC	ATCCCCTAGG	AGATGAGCGA	5400
TTGAAATCTG	CTCAATCTTA	TCAATCAAAC	GCTCTTCTGG	CAGATAGATG	GTATCCAAAA	5460
CAACCAATTT	CTTAATAGCT	GATTTTTGGA	TATTGTCCGT	AGCAGGACCA	GAAAGAACTG	5520
GGTGCGTACA	GCTTGCATAG	ACTTCAACAG	CACCAGCTTC	CGCAAGAGCA	TCTGCCGCAT	5580
GACAAATCGT	TCCAGCGGTA	TCAATCATAT	CATCAATCAA	GATACAAGTC	TTGCCTTCAA	5640
CCTTACCGAT	GATATTCATA	ACTTCACTAG	TATTCATCTT	ATCAACGCTA	CGACGTTTAT	5700
CAATAATAGC	GATAGATGTT	TTCAAAAATT	CTGCCAACTT	ACGAGCACGA	GTCACCCCTC	5760
CATGGTCCGG	GCTGACAACC	ACATAGTCAG	AACCAACCAT	ACCACGACGC	TCAAAATAAT	5820
CTGCAATCAG	AGGAGCACCC	ATCAAATGAT	CCACAGGAAT	ATCAAAGAAT	CCTTGAATTT	5880
GCGCAGCATG	CAAGTCGATG	GTCAATAAAC	GATCCACTCC	AGCTACTTCA	AGCATATTTG	5940
CGACAAGTTT	TGAAGTGATT	GGCTCACGCG	CTCTCGCCTT	TCTATCCTGA	CGTGCATACC	6000
CATAGTAAGG	CATGACAACA	TTGACAGATT	CTGCACTCGC	ACGCTTCAAA	GCATCTACCA	6060
TAATCAAAAT	TTCAAGCAGA	TTGTCATTTA	CAGGCGAACT	AGTTGATTGT	AAGATAAAGA	6120
CGTGTTTCCC	ACGGATTGAT	TCTTCAATGT	TGACCTGAAT	CTCTCCATCT	GAAAATTGGC	6180
GAACACTTGA	TTTCCCCAAC	TCTATCCCAA	TCTCCTGCGC	CACACGTTCT	GCCAATTCTT	6240
TATTAGAAGA	AAGGGCAAAC	AGCTTTAAAT	CAGAAAAAGA	CATGATTTCC	TCCGGTATAT	6300
ATGTATAACT	TGTGCTTTTC	ACAAGATTTT	CCATCTACCA	TTGTAGCGCT	TTTTGCACTA	6360
TTTTTCAATC	AAAAATAAAA	GAAGGGCACC	ATATTTGTAC	CCTTGCATCA	TTCTTTTGAA	6420

606

AAATATTCTA	GGTCATCAAC	TCATTGTGTT	TCTCAACAAA	GCAATAAGCA	TGATAAAAAC	6480
CATAGAGAGC	AATAGCCGTA	ACCACTGGAA	TCGCTAAAGG	CAACTCTGTT	TCCAACCTCCA	6540
CAAAAGGAGA	GTTAAACAAG	AAGTGAGTTC	CCAAGGCTAA	ACCTAGAAAA	ATAAGGCCCT	6600
GTTTCTTGCC	AACCTTCTGT	CCTTTATAGG	CTCTGTAAAG	CAAGTAAACA	CCTACTACAG	6660
CTAGACCTGA	AAAAGTCCAG	TGAGAGGCAA	TTCCTGAGAT	GATACGCTCT	AAAATTCGCG	6720
AAATAGTAAA	GTCAAAGCCC	TCTGGCAAAT	CCGTACGAAT	ATAACCAATA	TCCTTAATCA	6780
TTTGGAATCC	CAAACCGGAA	GCAATTCCAA	GTAAAAACAA	AGATTTTAAT	TTTCGCACAG	6840
GAATCAAAGC	CAAAACAAAA	ACAAGTGACA	ATAATTTCAA	GGGTCTTCT	ACCAAAGGAG	6900
CCGCAATAGC	ACTTTCAAAG	GCATTTAAAA	ATGGACTATC	TGGGAAAAGA	ACCCCCAGTA	6960
AATCATGGAT	ATAAGTATTA	GCAAAACTAG	ACAACCAGCC	TGAAAGGAAC	ATCCCTCCCA	7020
ATAAAGACAG	AATCAAAACC	TTCTTTGGCA	ATTCCCATT	TTCCCAATAC	GGAAGAGAAA	7080
ATAAAGAGCC	GGAATCATGT	AAAAGAGAGC	TAGAAAGATA	GAAACTCCCA	TTAGTCCATA	7140
TTCCGCACCT	GACCTCGAAC	CGTCCGTATA	GTAGATGGTT	TCATACTGTA	AACCAATACA	7200
TAGCAATAAA	ATAAAAATAA	ATAAAAATAT	GCTTTTCTTC	ATACACTTTC	TTTCTAAATG	7260
AAGTATTTAT	AATTCTACGA	CTGTCATACT	TCCTGTATCA	ACATTGTAAA	TGGCACCAGA	7320
GATAATGACA	TCGTCTGGTA	TTAGGGGAGA	CTCGATAAGC	AGTTGCATAT	CCTCGCGTAC	7380
ACTCTCTTCT	ATATCTTGGA	AGGGCAAGAA	GTCCTGGTCT	GACACATCGA	CACCCAATTC	7440
TTCCTTCAAA	TACTCCTGAA	AAGGTTCAAT	TTCAAAGGTC	TGAGCACCAC	AGTCTGTATG	7500
ATGCAATACC	ACAATTTCTC	TTGTCCCCAT	TTGTTGCTGG	GAAATAACTA	GAGAACGAAT	7560
CATATCCTCA	GTCACCTCGAC	CACCTGCATT	CCGCAAAATA	TGAGCATCCC	CAAGTGCCAA	7620
ACCTAGAGCT	TGCGCAACGT	GCAAACGTGA	GTCCATACAG	GTCACAATGG	CTACTCTGGT	7680
TTTAGGTTTA	AGTGGCAGAT	TTAACTGCCC	ATGTAGGGCA	ACATAAGCCT	GATTGGCTTG	7740
CATAAACTGT	TCAAAATACG	ACACGATTCC	CTCCTTGAAA	ATTTGATAGT	CAAATATTTT	7800
TCCTATCTTA	TCATTTTAA	GAGAATTTGT	CACGGATTAT	GCAAAGACCT	TTTTCAAGAC	7860
TTCCTGAATC	GTTGTCACGC	CAATGACCTG	AATTTCTTAA	GGCAGAGTGA	TTCCTGTCAA	7920
GGAATTCTTA	GGTACATAAA	TCTTAGTAAA	GCCCAGTTTA	GCAGCTTCGT	TGATGCGTTG	7980
CTCAATACGA	TTCACGCGCC	GAATCTCTCC	TGTCAAGCCC	AGTTCTCCGA	CAAAACATTC	8040
CTGAGGATTA	GTTGGCTTGT	CTTTGTAGCT	CGAAGCAATA	GCAACTGCAA	CAGCCAAGTC	8100
AATCGCAGGT	TCATCCAATT	TAACACCACC	AGCAGATTTG	AGATAGGCAT	CCTGATTTTG	8160
CAAGAGAAGC	CCTGCCCCGT	TTTCCAAAAC	AGCCATAATC	AAGCTAGCAC	GGTTAAAATC	8220

607

AAGTCCTGTC	GTAGTACGCT	TGGCATTTC	AAACATGGTC	GGTGTACCA	AAGCCTGAAC	8280
CTCCGCCAAA	ATCGGACGCG	TCCCTTCCAT	GGTTACAACG	ATGGAGGAAC	CAGTCGCCCC	8340
ATCCAAACGC	TCTTCTAGGA	AAACTTGACT	CGGATTGAGT	ACCTCAACCA	AGCCGCCCCG	8400
CTGCATCTCA	AAAATCCCAA	TCTCATTAGT	GGAACCAAAA	CGATTTTGA	CCGCTCTCAA	8460
AATACGAAAG	GTGTGGTGAC	GCTCCCCCTC	AAAGTAAAGC	ACCGTATCCA	CCATATGCTC	8520
CAACATACGA	GGCCCAGCCA	AGGTTCCCTC	TTTGGTCACA	TGACCTACGA	TAAAGATGGC	8580
AATGTTATTG	GTCTTGGCCA	ACTGCATGAG	TTCAGCGGTC	ACTTCACGCA	CCTGAGAAAC	8640
AGACCCCTGC	ACCCCTGAAA	TCTCAGGAGA	CATGATGGTC	TGGATGGAAT	CAATAATGAG	8700
AAAGTCTGGC	TGGATACGCT	CCACTTCTGC	ACGAACACTC	TGCATATTGG	TCTCTGCATA	8760
GAGATAAAAC	TCACTATCAA	TATCACCTAA	GCGCTCTGCA	CGTAGTTTAA	TCTGCTGGGC	8820
AGACTCCTCC	CCACTGACAT	AGAGAACTGT	CCCCACTTGG	GACAACTGGG	TTGAGACTTG	8880
TAGGAGAAGA	GTTGATTTCC	CAATCCCAGG	ATCCCCACCG	ATAAGGACGA	GACTTCCTGG	8940
TACCACTCCG	CCTCCAAGCA	CACGGTTGAA	TTCCTCCATC	TCCGTCTTGG	TTCGATTGAC	9000
ATTGATGGAA	GTCACCTCAG	CTAGTTTCAT	GGGCTTGGTT	TTCTCACCTG	TCAAGGACAC	9060
ACGCGCATTC	TTAACTTCGG	CAACCTCAAC	CTCTTCCACA	AAAGAAGACC	AAGACCCACA	9120
GTTGGGGCAA	CGTCCCAGAT	ATTTAGGGGA	ATTATACCCA	CAATTTTGAC	ATACAAATGT	9180
CGCTTTTTTC	TTTGCGATGA	CAAACCTCTT	TCTATATCTC	TAATCACAC	TCAATCACTT	9240
GGCAAAAATC	AATCTTCTCA	TTTGGCACAA	ACTGGCGCAT	GAGCATTCGA	TGAGCAACAA	9300
CTACCACAGT	CTGATGTTCT	CGATACTTAG	ACATACATTC	TAGAAACCGA	GACTTCATTT	9360
CCGTAGCTGT	CTCATATTGA	ATAGGACTAT	TAGGAAGCAA	CTCCCCCTTG	TTTTCTAAAA	9420
ACAGTCTTCT	AGCTGTTTCA	AAGTTTTCTA	TTCCTGTTTT	ATAGACCTGC	CATTCATGTA	9480
ATAAAGGCTC	TACTCTTAAA	GGAAGACCCG	TAGCACAGAC	CACATACGAA	GCCGTTTCTA	9540
AAGCTCTTGT	GACTGCAGAA	GATACGATTA	TTTCAGCTGA	CGAGAGTAAA	GGATTTTTCG	9600
TCAATTTCTG	GACTTGCTGC	CGTCCCATCT	CAGACAAGGG	TGCCAAATCT	ATCCCAAATC	9660
CTATATAAGA	ACGCTCCTCT	AACTCACGGT	AATCTGGCTC	CCCATGACGT	ACAAAGATAA	9720
TCTTCATTCT	AGTGCCCTGT	CGATCCAAAT	CCACCAGTTC	GAACGCCATC	AGCTGCATCT	9780
CCATCTGCAA	TTAAGAAAGT	AGCAAAAACA	GCCTGGACAA	TACGCTCCCC	AACTTCAAGA	9840
ACAACCTCTT	GGTCTGTGAT	ATTCTTCATC	TGCGCAAAAA	TATGCCCTTC	ATTTCCAGGA	9900
TTCCATAAT	AATCCCCATC	AATGACTCCA	ACTGAGTTAA	TTAAAACCAA	GCCCTTCTTA	9960

608

CGAGGATTTG AAGAACGATC ATAGAGGTAG AGAACCTCAG TCGGCTGCAT ATAAGCCTTA	10020
ACCCCTGTCG GAACCAAGAC AATCTCTCCT GGCGCAACAA CTGTACGCAC AGCAACCTTT	10080
AAGTCGTAAAC CAGTCGCATG CGCTGTCTCA CGCTTGGGCA ATAAATTTTC ATCTGTAAAA	10140
CTCGAAACCA ATTCAAACC ACGAATTTTC ATAATTTTCT CTTTTCTATT ATCATTTATT	10200
CTAGATTATT CTATACTTAT TTA	10223

(2) INFORMATION FOR SEQ ID NO: 74:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16535 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 74:

TGGTTCGTGTC CTTATCGGCG CCTTGTCTTG CTTGCCATGG CTACACCAAC TATCTCATCC	60
GACGAAAGTA CACCAACCAC TAACGAACCC AACAACAGAA ATACAACCAC CCTTGCCCAA	120
CCTCTTACTG ATACAGCAGC TGGCTCTGGT AAGAACGAAA GTGATATTTTC TTCACCTGGA	180
AATGCAAACG CTTCCCTAGA GAAAACAGAA GAAAAACCTG CTGCAAGCCC AGCCGATCCA	240
GCACCACAAA CTGGACAAGA TCGTTCAAGT GAGCCAACTA CTTCTACTAG TCCAGTAACA	300
ACTGAAACTA AGGCAGAAGA GCCCATCGAA GATAACTACT TCCGTATCCA TGTCAAAAAA	360
CTTCCTGAAG AAAACAAGGA TGCTCAAGGA CTATGGACTT GGGACGATGT TGAAAAACCA	420
TCTGAAAAC TGGCCAAACGG AGCTTTGTCC TTCAAGGATG CCAAGAAAGA TGACTACGGC	480
TATTACCTAG ATGTCAAATT AAAGGGAGAA CAAGCCAAGA AAATTAGCTT CCTCATCAAC	540
AATACAGCTG GAAAAAATCT AACC GGCGAT AAATCTGTAG AAAA ACTAGT TCCAAAAATG	600
AACGAAGCTT GGT TAGACCA AGATTACAAG GTTTTCTCTT ACGAGCCACA GCCTGCAGGA	660
ACTGTTTCGCG TCAACTACTA CCGCACAGAT GGCAACTATG ACAAGAAATC TCTCTGGTAC	720
TGGGGAGATG TGAAAAATCC AAGTAGCGCT CAATGGCCTG ACGGAACAGA CTTTACGGCT	780
ACAGGCAAAT ATGGCCGCTA TATCGACATT CCTCTTAATG AAGCCGCAAG AGAATTTGGA	840
TTTTTATTAC TAGATGAGAG CAAACAAGGA GACGACGTGA AAATCCGTAA AGAAAATTAT	900
AAGTTCACAG ATTTGAAAAA TCATAGCCAA ATTTTCCTAA AAGACGATGA TGAATCGATT	960
TACACAAATC CATACTATGT CCATGATATC CGTATGACAG GAGCCCAACA CGTAGGCACT	1020
TCTAGCATTG AAAGTAGCTT TTCAACACTT GTCGGTGCTA AAAAAGAAGA TATCCTCAAA	1080
CACTCCAACA TCACTAATCA CCTAGGAAAC AAGGTA ACTA TTACCGATGT TGCAATCGAT	1140

609

GAAGCTGGTA AGAAAGTGAC CTACAGCGGA GATTTCTCTG ACACAAAACA TCCTTATACT	1200
GTTAGCTACA ATTCCGACCA ATTCACTACC AAAACAAGCT GGCGCCTGAA AGATGAGACA	1260
TACAGCTATG ATGGCAAACCT GGGAGCTGAC CTAAAAGAAG AAGGAAAACA AGTTGATTTG	1320
ACCCTTTGGT CACCAAGTGC TGATAAGGTT TCTGTTGTTG TCTACGACAA GAATGACCCT	1380
GACAAAGTAG TTGGAACGTG CGCTCTTGAA AAAGGGGAAA GAGGAACTTG GAAACAAACT	1440
CTAGACAGCA CAAACAAACT CGGAATCACA GATTTCACTG GCTACTATTA TCAATACCAA	1500
ATCGAGCGTC AAGGTAAAAC TGTTCCTGCA CTCGATCCTT ACGCTAAATC TCTTGCTGCT	1560
TGGAATAGCG ACGATTCCAA GATTGACGAT GCCCATAAAG TGGCTAAAGC CGCCTTTGTA	1620
GATCCAGCTA AACTCGGACC TCAAGACTTG ACTTATGGTA AGATTCACAA TTTCAAGACT	1680
CGTGAAGACG CCGTTATCTA CGAAGCTCAT GTGCGTGATT TCACTTCAGA TCCTGCCATT	1740
GCAAAAGACT TGACCAAACC ATTTGGGACT TTTGAAGCCT TCATTGAAAA ACTAGACTAT	1800
CTCAAAGACT TGGGTGTAAC CCATATCCAG CTCCTTCCAG TCTTGTCTTA CTACTTTGTC	1860
AATGAATTGA AAAACCATGA ACGCTTGTCT GACTACGCTT CAAGCAACAG CAACTACAAC	1920
TGGGGATATG ACCCTCAAAA CTACTTCTCC TTGACTGGTA TGTACTCAAG CGATCCTAAG	1980
AATCCAGAAA AACGAATCGC AGAATTTAAA AACCTCATCA ACGAAATCCA CAAACGTGGT	2040
ATGGGAGCTA TCCTAGATGT CGTTTATAAC CACACAGCCA AAGTCGATCT CTTTGAAGAT	2100
TTGGAACCAA ACTACTACCA CTTTATGGAT GCCGATGGCA CACCTCGAAC TAGCTTTGGT	2160
GGTGGACGCT TGGGGACAAC CCACCATATG ACCAAACGGC TCCTAATTGA CTCTATCAAA	2220
TACCTAGTTG ATACCTACAA AGTGGATGGC TTCCGTTTCG ATATGATGGG AGACCATGAC	2280
GCCGCTTCTA TCGAAGAAGC TTACAAGGCT GCACGCGCCC TCAATCCAAA CCTCATCATG	2340
CTTGGTGAAG GTTGGAGAAC CTATGCCGGT GATGAAAACA TGCCTACTAA AGCTGCTGAC	2400
CAAGATTGGA TGAAACATAC CGATACTGTC GCTGTCTTTT CAGATGACAT CCGTAACAAC	2460
CTCAAATCTG GTTATCCAAA CGAAGGTCAA CCTGCCTTTA TCACAGGTGG CAAGCGTGAT	2520
GTCAACACCA TCTTTAAAAA TCTCATTGCT CAACCAACTA ACTTTGAAGC TGACAGCCCT	2580
GGAGATGTCA TCCAATACAT CGCAGCCCAT GATAACTTGA CCCTCTTTGA CATCATTGCC	2640
CAGTCTATCA AAAAAGACCC AAGCAAGGCT GAGAACTATG CTGAAATCCA CCGTCGTTTA	2700
CGACTTGGA ATCTCATGGT CTTGACAGCT CAAGGAACTC CATTTATCCA CTCCGGTCAG	2760
GAATATGGAC GACTAAACA ATTCCGTGAC CCAGCCTACA AGACTCCAGT AGCAGAGGAT	2820
AAGGTTCCAA ACAAATCTCA CTTGTTGCGT GATAAGGACG GCAACCCATT TGACTATCCT	2880

610

TACTTCATCC	ATGACTCTTA	CGATTCTAGT	GATGCAGTCA	ACAAGTTTGA	CTGGACTAAG	2940
GCTACAGATG	GTAAAGCTTA	TCCTGAAAAT	GTCAAGAGCC	GTGACTATAT	GAAAGGTTTG	3000
ATTGCCCTTC	GTCAATCTAC	AGATGCCTTC	CGACTTAAGA	GTCTTCAAGA	TATCAAAGAC	3060
CGTGTCCACC	TCATCACTGT	CCCAGGCCAA	AATGGTGTGG	AAAAAGAGGA	TGTAGTGATT	3120
GGCTACCAAA	TCACTGCTCC	AAACGGCGAT	ATCTACGCAG	TCTTTGTCAA	TGCGGATGAA	3180
AAAGCTCGCG	AATTTAATTT	GGGAACTGCC	TTTGCACATC	TAAGAAATGC	GGAAGTTTGT	3240
GCAGATGAAA	ACCAAGCAGG	ACCAGTCGGA	ATTGCCAACC	CGAAAGGACT	TGAATGGACT	3300
GAAAAAGGCT	TGAAATTGAA	TGCCCTTACA	GCTACTGTTC	TTCGAGTCTC	TCAAAATGGA	3360
ACTAGCCATG	AGTCAACTGC	AGAAGAGAAA	CCAGACTCAA	CCCCTTCCAA	GCCTGAACAT	3420
CAAAATGAAG	CTTCTCACCC	TGCACATCAA	GACCCAGCTC	CAGAAGCTAG	ACCTGATTCT	3480
ACTAAACCAG	ATGCCAAAGT	AGCTGATGCG	GAAAATAAAC	CTAGCCAAGC	TACAGCTGAT	3540
TCACAAGCTG	AACAACCAGC	ACAAGAAGCA	CAAGCATCAT	CTGTAAAAGA	AGCGGTTCGA	3600
AACGAATCGG	TAGAAAACTC	TAGCAAGGAA	AATATACCTG	CAACCCAGAG	TAAACAAGCT	3660
GAACTTCCAA	ATACAGGAAT	CAAAAACGAA	AACAAACTCC	TATTTGCAGG	AATCAGCCTC	3720
CTTGCGCTCC	TTGGTCTCGG	TTTCTTACTA	AAAAATAAAA	AAGAGAACTA	AACTAGCCCT	3780
CCTATAGAAA	AATCCCCCAA	GCATTATAGC	TCGGGGGATT	AATTTTTGTA	CAATATTTGT	3840
TGTCCTAATA	AACTTGATTA	GGATTTTTTA	TTAAGCCTCT	TTCATAGCAA	AATAAGCTCG	3900
TACTTTGGGT	GCAACTTGTG	TTCCGAAGAG	TTCAATAGCT	CTCAGAACCT	GGTCATGAGG	3960
CATAGAACCA	AGCGGTAGAT	GAAGCATGAA	GCGGTCCAAT	CCTAAATCCT	CTATCATGCG	4020
AATCAATTTT	TCGGCCACCT	GATCTGGATT	GCCAACAAAC	ATGGCGCCAT	TTGGCCCTAC	4080
CTGCTCCAAA	TATTGCTCAT	AACGCAATTC	CTGCCAGTGC	GGACGGTCTT	TGGAAATAGC	4140
ATCCACCACT	TGCTTAGTCG	GATGGAAATA	ATCTTTCACC	GCCTGCTCAC	CATCTTCCGC	4200
AATCCACCCC	CAAGAATGGG	CTCCCACTTT	CAAGTCTTTG	TCAGCATGGC	CCCTTCGCTT	4260
CCAATCTCAC	GATAAGCCTG	AATCAACTTT	TTAAAATAAC	GTGGATTACC	ACCAATAATA	4320
GCATATACAA	TCGGTAGACC	AGCCTGAGCA	ATCTTCACTG	TTGATTCGAC	ATGACCACCT	4380
GTAGCTATCC	ACAAGGGCAA	TTTGTCTCTG	ACTGGACGAG	GATAAACTTC	TTTACCAGCA	4440
ATCGTTTGAG	TCAATCGACC	TTGCCAGTCT	AACTTGGTCT	TTTCATTGAC	TAACTGAAGC	4500
AAGTCTAATT	TCTCATCAAA	AAGAGAGTCG	TAGTCTTTCA	AGTCATAACC	AAACAGAGGG	4560
AAAGATTCCG	TGAAAGAGCC	CCTTCCAGCC	ATAATCTCCG	ATCGTCCATT	TGACAAAGCA	4620
TCGATAGTGG	CATACTGTTG	GAACAAACGA	ATCGGGTCCA	TGCTTGACAG	AATGCTGACT	4680

611

GCACTGGTCA AACGGATTTT CTTGGTATTG ACTGCCCCAG CGGCCAGAAC AATCTCTGGG	4740
GCTGATACTG CAAAATCCGC CCGATGGTGC TCACCAATCC CATATACATC CAAACCAACC	4800
TTGTCAGCCA GCTCAATCTC TGCCACCAAC TGGCGAATGC GTTCAGCATG ACTGTAAGTT	4860
TGTCCAGTCC CTTCAAGCTC CGTTATTTCC CCAAATGTTG AAATTCCCAA TTCTACCATT	4920
GTGATTCTCC TTATCTATCT CTGTACTTCA ATTTGAAAAA TTATTCTAAC ACGAATCTTG	4980
AGTACAAGCA ACCGATTTGC TCATTAGAAA AAGCCTAGAT AACTAGACTT TTTTAGCTTA	5040
TTCTACCGTT ACTGACTTGG CAAGGTTACG TGGTTTGTCC ACATCGAGGC CACGGTGGAG	5100
GGTTGCAAAG TAAGCGACTA ATTGCGTTGG TACGACCATT GAAATTGGTG AGAGGTATGG	5160
ATGTACGGTC GTAAGGACGA TATCGTCGGT ATCTTTGGCT ACATTCTCTT CTGCGATAGT	5220
GAGGACTTTG GCACCACGGG CTGCGACCTC TTGGATATTT CCACGAGTAT GATTGGCAAG	5280
AACTGGATCT GACAAGAGAG CCAAAACAGG CGTTCCTTCT TCAATCAAGG CAATGGTTCC	5340
GTGCTTGAGT TCTCCTGCAG CAAAGCCTTC ACACTGGATA TAAGAAATCT CTTTGAGTTT	5400
GAGACTTGCT TCCATGGCTA CGTAGTAATC TTGACCACGT CCGATGTAAA AGGCGTTACG	5460
AGTTGTTTCA AGAAGTTCAC GAACCTTGAC TTCAATGGTT TCTTTCTCTG AAAGAGTTGA	5520
TTGATAGAC TGAGCTACGA TTGACAATTC ATGAACCAGG TCAAAGGCTT GCGCTTTAGC	5580
ATTACCATTT GCTTCTCCGA CTGCTTTTGC AAGGAAGGCA AGGGCTGCGA TTTGCGCTGT	5640
ATAGGCTTTA GTTGATGCCA CGGCAATTC AGGACCTGCG TGAAGGAGCA TGGTATAGTT	5700
GGCTTCACGT GAGAGGGTTG AACCTGGAAC GTTTGTCACT GTTAAGCTTG GAATTCCCAT	5760
TTCATTAGCC TTGACCAAAA CTTGACGACT ATCCGCTGTT TCACCAGATT GGCTGATAAA	5820
GATGAAGAGT GGTTCCTTGC TGAGAAAGTG CATAACCGTAG CCCCCTCAG ATGAGATTCC	5880
AAGTTCAACT GGTGTATCTG TCAATTCTTC CAACATTTTC TTAGAAGCAA ATCCTGCATG	5940
GTAAGATGTT CCAGCTGCAA GGATGTAGAT GCGGTCTGCG TCTTGAACAG CCTTAATGAT	6000
ATCTGGGTCT ACGACAACTT GACCAGCCTC ATCTGTGTAG GCTTGGATGA GTTTCCGCAT	6060
AACAGTTGGT TGCTCGTCAA TTTCCTTGAG CATGTAGTAA GGGTAAGTTC CCTTACCGAT	6120
ATCTGACAAG TCAAGTTCAG CAGTGTAGCT AGCACGCTCA CGACGATTC CATCATAGTC	6180
TTGAACTTCC AACTATCAG CCTTGACGAT TACCAACTCT TGGTCATGGA TTTCCATGTA	6240
TTGGTTAGTT TCACGAATCA TAGCCATGGC GTCTGAGCAG ACCATGTTAT AGCCTTCTCC	6300
AAGACCAATC AAAAGTGGTG ATTTATTTTT AGCTACGTAG ATGACTTCAG GATCTTGTGA	6360
GTCAACCAAG GCAAAGGCAT AAGAACCACG GATGATGTGA AGGGCTTTTT TGAAGGCTTC	6420

612

AAGAACTGAG	AGCCCTTCTT	CTTCCGCAAA	TTTTCCAATC	AAATGAACGG	CTATTTTCAGT	6480
ATCTGTCTGC	CCCTTGAAGT	GGTGACCTGC	AAGGTATTCT	TCCTTGATTT	CAAGATAGTT	6540
CTCAATCACC	CCATTATGCA	CCAAGACAAA	ACGTTCCGTC	TCAGAGCGGT	GTGGGTGAGC	6600
ATTGTCCTCA	GTTGGTTTTT	CGTGAGTAGC	CCAACGAGTA	TGTCCGATAC	CAGTTGTTCC	6660
CTCAACACCA	GCTGTCCTTG	CAGACAATTC	TGCAATACGA	CCAACCGCCT	TCACCAAATG	6720
GTTATCAGCA	CCATCTAGGA	CAAAAATTCC	CGCAGAATCA	TAGCCACGGT	ATTCAAGCTT	6780
TTCAAGCCCT	TGAATCAAAA	TATCAGTTGC	ATTTGTGTTT	CCAACAACAC	CAACAATTCC	6840
ACACATAGTA	TATACGACAC	AGGCAAGCTG	TGCTTTCTCC	TTAAAATTGG	TATAGTCTAA	6900
TTCATCTTTT	ATAGAATCAG	CAAAAACAGT	ATATACTTGT	TTCTTTCACT	TGTCAAGAGT	6960
AAAAATTGGT	ATAGTTCAAA	TTAAGCTCCT	GTAAGCATAA	AAACTCTGAC	CGATTGGGAT	7020
AATCAGTCAG	AGTCCTTTTT	AAAATCCATT	ATTATCGCTT	AATTCTTTGA	ACCAGTGGCC	7080
TGATTTCTTC	AGACGACGTT	CTTGCGTTTC	CAAGTCTAAT	TCGACCAAAC	CATAGCGATT	7140
TTTATAGCTG	TTGAGCCATG	ACCAGCAGTC	AATAAAGGTC	CAAATCAAGT	AGCCCTTACA	7200
GTTGGCACCA	TCTTCAATGG	CACGGTGAAG	TTCACGAAGA	TGACCTTTTA	CAAAGTCAAT	7260
ACGGTAATCA	TCTTGAATCA	TTCCATCTTG	ACGGAATTTT	TCTTCCCCTT	CAACACCCAT	7320
ACCATCTCTA	GTCAACATCC	ACTCAATATT	GCCATAATTT	TCCTTGATAT	TTTGGGCGAT	7380
GTCATAAATC	CCTTGCTCAT	AAATCTCCCA	ACCACGGTGA	GAATTGATTT	TACGTCCAGG	7440
CATCACATAA	GGCTCGTAAA	AATGTTCTGG	TAAGAGTGGA	CTCTCTGGAT	GCTTAGCAAA	7500
TCGAGGAGCC	ATAACACGCA	AAGGTTGATA	GTAGTTCACA	CCAAGGAAGT	CCACCGTATT	7560
ATCACGAATG	AGTTCCAAC	CTTCCTCTGT	AGCATCAGGT	AAAAGACCGT	GTTTCATGCAA	7620
GATTTCTACC	AACTCCTGTG	GATAAGTCCC	CAAGACAGAT	GGATCTAAGA	AAGATTGGGC	7680
CTGAAAAAGG	GCCGCAATAC	GAGCTGCCTT	GACATCAGCA	GGATGCTGGC	TACGTGGATA	7740
AGCCGGTGTC	AAGTTGAGGA	CAATCCCAAT	CTTGGAATCA	GGCAAAAGTT	CATGGCAAGC	7800
CTTAACAGCC	CGGCTGCTGG	CCAATTGTGT	ATGATAGGCT	ACCTTAACAG	CTGCCTCTGC	7860
ATCCACCTTA	TGTGGATAAT	GGGCATCATA	AAAAATAACCA	AATTCTACAG	GAACGATGGG	7920
CTCGTTAAAG	GTAATCCATT	GATCCACTAA	ATCTCCATAA	GTCTCAAAAC	AAAAACGAGC	7980
ATAGTCTTCA	TAGGCTGAGA	CTGTGCGCCT	ATTTTCCCAA	CCATCACCAT	CCTCTTGAAG	8040
GGCAAAAGGT	AAATCAAAAT	GATAGAGATT	GACTAACAGA	CGAATTCCTT	TAGCCTTAAT	8100
AGCCTCAAAG	ACCTTACGAT	AAAAATCCAC	ACCTTGAGTG	TTGACTTTTC	CACAGCCTTG	8160
TGGAAAAATC	CGTGACCACT	GAATAGAAGT	CCGAAAGGCT	GTGTGACCAG	TCTCTAACAA	8220

613

AAGCTCAATA	TCCCGCTCCC	AATTTTCATA	AAAAGTCGAT	GTCTTATCTG	AACCAATCCC	8280
ATTATAGTAA	CGATTTGGCT	CCACTTGGA	CCAGTAATCC	CAGAGATTGT	CTCCCTTACC	8340
GTCACCAGCT	ACACGTCCTT	CTGTCTGCGG	TCCAGAAGTA	GAGGATCCCC	AGACAAAATC	8400
CTTTGGAAAT	CTTAGCATAC	ATTTACCTCT	TTATCTACTC	ATTTCTCCCA	TTATACAGAA	8460
AAAACAAGGT	AAAACTAGT	TACATTTTTT	CCTTGTTTTT	CTTCTGATTA	TAGTTTTTAT	8520
TTCTTGCTTA	GGATTTCAAG	CGTTTCAAGC	ACGTTATCTG	CATGAACCTC	AATGGTGTCA	8580
CCAGTTGCCT	TGATCTTAAC	TTCTACAATG	CCATCGGCCG	CTTTTTTACC	AACAGTGATA	8640
CGGATTGGAA	GACCAATCAA	GTCACTATCG	CTAAATTTAA	CACCGACACG	TCGTTACGG	8700
TCATCTGTCA	AGACTTCATA	ACCAGCTCCC	ATCAAGCTTG	CTTCAAGTTT	TTCTGTCAAG	8760
GCTTGCGCTT	CTTCATCCTT	GACATTGACA	GTAATCAAAT	GCACATCAAA	TGGTGCCAAT	8820
TCTTTAGGGA	AATTGATTCC	CCAAGCGTAA	CGGTATTCAC	CTTTTGGCGT	TTTGTTAACA	8880
AAGAGGCGAG	CGTGTTGCTC	CATCACTGCT	GAAAGAAGAC	GGCTGACACC	GATACCGTAA	8940
CATCCCATGA	TGATTGGCAC	AGCACGACCA	TTTTCATCCA	AGACATCTGC	TCCCATGCTT	9000
GCTGAATAGC	GAGTTCCGAG	TTTGAAAATA	TGACCGATCT	CAATACCACG	CGCAAAGTTA	9060
AGGACACCTT	GTCCATCTGG	GGAAATTTCA	CCCTCACGAA	CTTCACGGAT	ATCCACATAT	9120
TCTGCAGTAA	AATCACGGCC	TGGGTTTACA	CCAGTCAAGT	GGTAGTCATC	TTGTTAGCA	9180
CCGACAACCTG	CATTGCGAAC	ATCTTGTACC	TTACGATCTG	CAATAATTTT	AATATTCTCT	9240
GGCAAACCAA	CTGGTCCAAG	TGAACCAAAT	CCTGCTTGAA	CAACATTCGC	CACTTCTTCT	9300
TCGCTAGCAA	CGTCAAAGAA	ATCTGCTCCC	AAGTGATTTT	TCAACTTGAC	TTGTTGAGT	9360
TGGTCATTTT	CAACTAGAAG	GGCTGCAACA	AGCTCACCAT	CTGCAATGTA	GAAGAGGGTT	9420
TTAATCGTTT	GTTCTTCTGG	AACATTGAGG	AAGGCTGCAA	CTTCATCAAT	TGATTTAACA	9480
TCTGGCGTTG	CAACACGAGT	AACTTCTTCT	TCAGCGACAA	CACGGTTGCT	TGGTTGTAC	9540
TCGTTTGTTG	CCATTTCTAA	GTTAGCTGCA	TAGCTAGACT	CACTTGAGTA	AGCAATGGTA	9600
TCTTCACCAG	AGACTATCCA	TTTGAGCAAT	TCTGCCTTGA	TTTCTTCTTG	CACTTCTGCA	9660
GGAATTTTCGT	CAAATGAGGC	AACTGACTTG	TCCAAGACAA	CCCAGCGGTC	AAGGTCTGTA	9720
CGAGCAGATG	TAATGGCCAT	AAATTCTTGG	CTATCCTTAC	CACCCATGGC	TCCACCGTCA	9780
CCAATAATAG	CCTTGAAGTC	TAAACCACTA	CGAGTGAAAA	TACGCTCATA	GGCTGCTTTG	9840
TACTCATCAT	AAACACTATC	CAAACTATCA	TAGTTAGCGT	GGAAACTATA	AGCATCCTTC	9900
ATGATAAACT	CACGTGTACG	AAGAAGTCCA	TTACGCGGGC	GTTTTTCATC	ACGATACTTG	9960

614

GGCTGAATTT	GATAAAGGTT	GAGTGGCAAT	TGCTTGTAAG	ATTTAACAGA	ATCACGGACA	10020
ATAGCTGTAA	AGGTTTCTTC	GTGAGTTGGA	CCTAAGATAA	AGTCTGATTT	TTCACGGTTT	10080
TTTAGTTTGT	AAAGGTCTTC	ACCATAGGTT	TCGTAACGAC	CTGATTCACG	CCACAATTCT	10140
GCACTAAGAA	GGGCTGGAGC	CAACATCTCA	ACAGCACCAA	TCTTTTCGAA	TTCTTGGCGC	10200
ATGATGTTTT	TAGCTTTTTT	AATCACACGG	TTGGCAAGTG	GTAATAAGA	ATAAACACCT	10260
GCTGAAACTT	GGCGAACATA	ACCAGCACGC	AACATAAGAG	CATGGCTGAT	AACTTGAGCA	10320
TCGCTTGGCA	TTTCGCGAAG	CGTTGGGATA	GGCATTTTAC	TTTGTTTCAT	AATATTCCTC	10380
GATTATCTAA	AAAAGAGTCG	CATAATGTCA	TTCCAAGTCA	CAGCAATCAT	CAAGACAACC	10440
ATGATGACCA	CTCCGGCCAA	GGTGACATAG	GTTTCAATTT	CTTGTTTCAA	TGGTTTGCGG	10500
CGGATGGCTT	CTAGGATATT	GAGCACAATC	TTACCACCAT	CCAAGGCTGG	AATCGGAATA	10560
AGATTAAAAA	TCCCAATATT	GATGGAAATC	ATTGCCAAGA	AGTACAAGAT	ATTTTCAATT	10620
CCATTTTTAG	CAGCATCACT	ACTTGCCTTA	AAGATAGCAA	CAGGTCCACC	CAACTTGTTT	10680
AAATCTGGTT	GGAAAATCAG	ATTTTTCAGA	GCTGAGAGAA	TTCGGAGAGC	TGAGTCAGCA	10740
GCAGTTGTAA	AACCACCTAC	AAACATGGAT	AGAAAATCTG	ACTTAACCCC	CGGTTGAACA	10800
CCTAGAAGGT	AACGACCTTG	ACTATCTTTG	GGTGTAACAG	TGACTTGTTT	GTCACTCCCC	10860
TTTTTCAGAA	TAGTCACATC	CAAAGTCGGT	GCCGTCCTAT	CTTTGGTTTC	TGTTTCCACA	10920
GCTTGGATCA	AGCTTTCCCA	GTTGCTAACC	TCATGTGAGC	CAATCTTGGT	AATTTGTGCC	10980
ATTTCTGGTA	CTCCTACCTT	GGCCAAGGCA	CCTTGGGGCA	TGATATGGAA	CTGATTGGTA	11040
TCAACATCTC	TGACACCACC	CTGCATAAAG	ATTAAAACCC	AAAAAACAAC	GACACCTAAG	11100
ATAAAATTGT	TCATAGGACC	TGCAAAATTG	GTAATCAGTT	TGCCCCAGAT	AGTCGCATTT	11160
TGATATTGAA	CATCTAAAGG	TGCAATCCGA	ACCTCAGTAC	CATCTGCTTC	CACAACCGTT	11220
GCATCGTGAT	CCACTGCAAA	TGTTTTTTCT	TCTTCCAGAA	CCAATCCTTT	GATAAAGAGC	11280
TTGTCTTCAA	AATCAAACCTG	GGTCACCTGC	ATAGGGAGGG	CTGTTTGATC	CAATTTTTTA	11340
CCTGAGAGAT	TGATGCGTTT	AACCTTACCA	TCATCAGCAA	GTGTCAAAC	AACAGGCGTT	11400
CCTGTCTTGA	TTTCAGTTGT	ATCATCACCC	CAACCGGCCA	TGCGGACATA	GCCACCCAGA	11460
GGCAAGATTC	GAATGGTATA	GGCCGTTC	TCCTTGCCAA	TGTGAGCAAA	AATTTTAGGT	11520
CCCATACCGA	TGGCAAATTC	ACGTACTAAA	ATCCCTGATT	TCTTGCAAA	GTAAGAAGTGA	11580
CCGAACTCGT	GCACCACTAC	AATAATCCCG	AAAACCAGAA	TAAAGGTTAA	AATTCCGAGC	11640
ATAGCGTTTC	CTCCGTCTTT	TGATTAAAAG	AGTCCAAATA	AGTGCATGAT	TGGAAATACA	11700
AGCAACATAC	TATCGAAACG	ATCCAAAACA	CCACCATGTC	CAGGGATAAA	TTTCCCAGAA	11760

615

TCCTTAACAC	CAAAATGACG	TTTGATCGAA	CTTTCTAGTA	AATCACCAA	TTGTCCAGCA	11820
ATGCTAAAGA	AAATAGCAAA	GACTGACATC	TTGTAAATTC	CATATGGAAG	AGCAACTGTA	11880
CTGTCAACTA	TCATAAGGAT	AATGGTTACT	AAAATTGCTC	CTAAAATACC	ACCCAAGGCA	11940
CCCTCAAGGG	TTTTATTAGG	CGATACCCTT	GGTGCTAACT	TTCGTTTCCC	ATAGTTCATC	12000
CCAACAAGAT	AGGCACCACT	GTCTGTCGCC	CAGACGATAC	ACAAGGCTAA	GAGAGCCTTG	12060
TCCAAACCTG	CAACACGAGC	ATCTAGTAAA	GCATTAAATC	CAAAGCCCAC	GTAGAAGCTC	12120
ATAGCAAGAG	GGAAAACCGC	ATCCTCAATC	GTATAAGACT	TGCTAAAAAC	GGTCGTTCCCT	12180
AACATGATTG	AAATCAAAAC	ACTATAGGCA	ACCACATTCC	CATCAACTGG	CAAAAAAGTC	12240
AGGTAATTCT	CCAAGGGAAT	GGTCAATGCA	AAGGTTGCAA	AGAGGGTCAA	GAGGCCCTCC	12300
ATCGTCATGG	TCTCTAGACC	TCTCATCTTC	AAAAGTTCAT	GCATGGCTAG	CATGGCTATG	12360
ATTCCGATTG	CTATCTGAAG	CAAGAGGCCC	CCAATCATTA	AAATTGGTAG	GAAAATAGCC	12420
AGGGCAATCC	CTGCAAACAA	GGTTCTTTTC	TGTAAATCCT	GGGTCATATT	TCCTCCTAAA	12480
CTCCTCCAAA	TCGGCGATGA	CGACGATTAT	AGGCAAGAAT	AGCTTCCTGC	AAGGCCGCTT	12540
CGTCAAAATC	AGGCCATAAG	GTGTCCGTAA	AATAAAGCTC	ACTATAGGCT	CCCTGCCATG	12600
GAAGGAAATT	GCTCAAACGT	AATTCTCCAC	TAGTACGGAT	AATCAAGTCT	GGGTCTCGTA	12660
AGTCCTTAGG	CAAATGCTGA	GTAAAGAGAT	AGTTACCAAT	CAATTCCTCT	GTGATGTCAC	12720
CTGGGTGAT	TTTGGCATCT	AAAACATCCT	GGGAAATCAA	CTTAAGCGCC	TGTGTAATCT	12780
CAGCACGTCC	ACCATAGTTA	AGAGCAAAAT	TAAGAATCAA	TCCTGTGTTG	TTCTTAGTCA	12840
ATTCCTCAGC	CTTGGTTAAA	GCTTCAAAGG	TTTGCTTAGG	CAGGCGGTCT	GTCTCCCCAA	12900
TCATTTGAAT	CTTAACATTA	TTCGCATGTA	GTTCCGGGAC	ATAATTATCA	TAAAACTCTA	12960
CTGGCAAGTT	CATGATAAAC	TTGACTTCCT	GATCTGGACG	GGTCCAGTTT	TCCGTAGAAA	13020
AAGCATAGAC	CGTAATAACC	TTGACGCCCA	GTTTGTGGC	TGCCTTGGTC	ACGGTTTGCA	13080
ATGCTTCCAT	GCCCGCCTTA	TGTCCAAAAA	CTCGCGGTTG	CATACGTTTT	TTAGCCCAAC	13140
GGCCATTGCC	ATCCATGATG	ATGCCGATAT	GAGCAGGAAC	CTGTGTCGGA	ACCTCTACTT	13200
CCACAGCCTT	ATCTTTCTTA	AAAAATCCAA	ACATGATCCT	ATTCCTATTC	AAAAATCTAT	13260
CGTTTCATTA	TACCATATTT	CCCCATTTTC	TTCTATCACT	AAGCTATTTA	TTCTCAGGCA	13320
CCAAGCCCAT	TTTTCAAAAA	AATAAGCCGC	CTGATTGGGC	GACTTTATTT	TTATAGGGAG	13380
ATTATTATGA	AAAAGTTTTA	GGAGTTTAAG	TTAAGGTCTT	CTTAACTTAT	GAACCTAGTG	13440
TACACTCCCT	AGCTTAAAGT	TTCCTTAAGT	ATTTTTAAAA	ATCAAATTTT	TCCATTTCTC	13500

616

CTGCCAATTT	TTCTTGGATA	AACGTGTTTG	ATAGAGTTCC	ATTTCGGTCTT	CATTTTCTAA	13560
GAAATGAGGA	GTTGGACGAA	CTTGAAAATT	CAAAATATCC	TCCAAACCAT	AAGGTACATA	13620
GAGTTCAAAA	TCTAATTCTT	CATTCAAGCG	CAGTCCAAC	GCCGTACACC	GTTCTGGATA	13680
CTTACTCATA	GCATCACGAG	AACTGGTATA	GGAAGCAGTG	TGAGGACTGT	GCTGATGCAT	13740
ATAGACCTGA	TTTTTCAATT	CCCACTGGTA	CTGAGGAAAA	TCCTCTCTCA	GCTTTTCTC	13800
CAGTAATAAG	GTTTCCTCAT	AAGAAAAATC	TGGATCAAAG	AAAATCACAT	CTATATCTGT	13860
TTCATGATCA	AAAGGGGATT	TGTCTGACAA	AAGATTCCAG	ATGAAATTTT	TGACAGAACC	13920
TGCTGCCAAC	CACGAGTCTT	TCAAACCAAG	GTCTCGGATG	ATCGTCAGAA	TGGCCATCAT	13980
ATCTGGACTT	TCTCTAAAAG	CCTCTAAGAT	TTCTTGCTTA	TTTTTCACTG	TATTCATAAC	14040
CTAAGTGCTC	ATATGCCTTA	GCAGTCGCCA	CCCGTCCAGA	CCGTGTCCGC	ATGATAAAAC	14100
CTTTTTGAAT	CAAGTAAGGC	TCATACATGT	CTTCAACTGT	CTCACGCTCT	TCGGCGATAT	14160
TCACAGAAAG	AGTTCCTAGA	CCAACAGGTC	CTCCACTGTA	CATCTCAATC	ATGGTGCGAA	14220
GGATTTTTTG	ATCCACATAG	TCCAAACCTT	CATGGTCAAC	ATCCAGCATA	GTCAAAGCCT	14280
TATCGGTAAT	AACATCATCG	ATAACCCCAT	TCCCCATTAT	CTGGGCAAAA	TCGCGCACGC	14340
GCTTGAGGAG	ACGATTGGCA	ATACGAGGGG	TTCCACGACT	ACGTAGGGCC	AACTCAGATG	14400
CTGCCTCATG	GGTGATTTC	ATCTCAAAAA	TATCTGCCGT	CCGCTCGACA	ATTTCTGTCA	14460
AGTCAGCATG	AGCATAATAC	TCCATATGAC	CTGTAATCCC	AAAACGTGCC	CGTAGTGGAT	14520
TTGAGAGCAT	ACCAGCCCGA	GTCGTGCGAC	CAATCAAGGT	AAAAGGAGGC	AACTCCAAAT	14580
GAACACTGCG	ACTGCCTTCA	CCAGCCCCAA	TCATAATATC	GATGTAGAAG	TCCTCCATGG	14640
CACTATAAAG	CACTTCTTCC	ACTGACATGG	GTAAGCGATG	AATCTCGTCA	ATAAAGAGGA	14700
CATCTCCAGG	CTCTAAATCA	TTCAAAATCG	CTACCAAATC	ACCCGCTTTT	TCGATAACAG	14760
GACCAGACGT	TTGCTTGAGA	TTGACTCCCA	GTTTATTGGC	AATGACAAAA	GCCATGGTTG	14820
TTTTCCCAAG	CCCTGGAGGG	CCAAATAAGA	GCACATGATC	CAGCGCTTCA	TCCCGCATTT	14880
TAGCGGCTTC	GATAAAGATC	TGAAGTTGAT	CCTTAACCTT	ATCCTGACCA	ATATATTAC	14940
GTAAATACTG	AGGACGGAGC	GTGCGTTCTA	CTAACTCCTC	ATCACCCATC	ATCTCATTAT	15000
CTAAAATTCT	ACTCATGGCT	CTATTATATC	AAAAAAACA	AGCCACAAAC	AAAAAGCCA	15060
CCTGATTGGG	TGACTCCTAA	GTTTAGCACT	TATGTGGTAT	AATATTATAC	GGCACTTCTA	15120
CACCGCCTAC	GAAAGGAGGT	GAGATAGCCC	ATGATGGAAT	TAGTACTCAA	AACTATTATC	15180
GGACCAATTG	TGGTCGGTGT	CGTTCCTCGT	ATAGTCGATA	AATGGCTAAA	CAAGGACAAA	15240
TAGTGTCAAA	AAAGACCTCA	AGCTTATTTG	GTCGTGAGCT	TGGGGTCTTT	TCTAGCCTAT	15300

617

GATATAGAAC TAGTACTCAA TTCCTTTTTA TTATCCCATA GTTCACGAAT TTTGTCAAAA	15360
CTTTACATTT TCTTCAACCG CTGTACGACA AGACGGTTAA GATTAAGAGA ACGTTAGGGA	15420
TTCTATCAAT TTCATAGAAA TTTTGATTTT GTAAACGAAG AGACAATCTT ACATGTCACT	15480
TCTCATTTAA TACGCCACTA CTAGACAAGC AAAATCATTA TTACAGTAGT TCCAGTCCTT	15540
CAATTAACAG TCACTTACAA TCAAATTGAG TTTGAACTAG CTGAAGCGAC CACAGACCTA	15600
TTTCTTAGTC ATATTCGCTA AAAAAATCCC CGCCAAAATC TCAAAAAGTC CCCGCCAATT	15660
CCCCGACCAA AATCCGAAAA ATACCGAAAA ATATCGAAAA ATTATTTTTA GAATAGTCCC	15720
AAAAATCCTG AAATAGAGCT AAAAACTCC ACCTGATTCG GTGGAGTTAA GGGAGATTAT	15780
TATGAAAAAG AAAAGTTTAG GATTTTATTA AATAAAGTTA GGAGGTCTTT ATTTAATAAC	15840
TACATGATAC AAGACGAAAC TTAAACTAG CTTAACTTTT CTAAAATTTT ACTATTTTGC	15900
AAAAAATTC TATCACCAGC ACCTCACCAA TCGAGTAGGG GATAATCTCT AGCCCCCTCTC	15960
ACACCACCGT ACGTGCCGTT TGGCATA CGGTTCAACT AACTTTTAAC GCATGTCGTT	16020
CAAGGTAATA ATCCAAACAC GAAACCAGTC CACGTTTTTC CAGGACTGGT TTTGATATAG	16080
CACGTTTAAG TACCGACTTC TGAGCTACTA ATTGATAATG GTCGCCCCAG CCAGATACCT	16140
TATCTGCTAT CCATTTAGGA ACTCCTAACT TAAGCAATCC CCATAATCGT CTCGATTCT	16200
TCTTCCATTG CTTCCAGATA ATCACTCGTA GGCGAGTACG CAAGCGCTCA TCTATGCTGG	16260
CGACTATACT TTTCATATTT CCCAATGAGC AATAGTTTAT CCATCCTCGA ATAGACAAAT	16320
TCAGTTGCTC AATACGTCTT GTTAGGTCTA TACTCCATTT CCTCTGTGTT AGTTTCTTCA	16380
ATTTAACTT AAATCTCCGA AACTATCTT GATGTGGACG GCTTTTCCAA CCATCTGATA	16440
ATTTCCAGAA CCCAAAACCT AGATATTTCA ACTCTCTTGG TCATGTTTAC TTTCAAACCT	16500
AGCCGTTTCT CAATAAACGA CTGACTGAAT ACATC	16535

(2) INFORMATION FOR SEQ ID NO: 75:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8136 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 75:

CCAGAGCGTT GCGTCCGAAA GTCTATCCAG ACACGGCTCT TAAAAACAA AAGGAGAAAT	60
GATGCATACT TATTTGCAAA AGAAAATTGA AAATATCAAA ACAACCCTAG GTGAAATGTC	120

618						
AGGTGGTTAC	CGTCGTATGG	TTGCGGCTAT	GGCTGATTTA	GGATTTTCAG	GAACATGAA	180
GGCTATCTGG	GATGACCTCT	TTGCCCATCG	TAGTTTTGCC	CAGTGGATTT	ATTTGCTGGT	240
TTTAGGAAGT	TTTCCTCTCT	GGCTGGAGTT	GGTTTACGAA	CATCGTATTG	TTGACTGGAT	300
TGGGATGATT	TGTAGCTTGA	CAGGGATTAT	CTGTGTAATC	TTTGTATCGG	AAGGTCGAGC	360
AAGTAATTAT	CTTTTTGGCT	TGATTAAGTC	TGTTATTTAC	CTTATTTTGG	CCCTACAGAA	420
AGGCTTTTAT	GGTGAGGTGC	TGACGACACT	TTACTTCACA	GTCATGCAGC	CAATTGGACT	480
TCTAGTTTGG	ATTTATCAGG	CACAGTTTAA	GAAGGAAAAG	CAGGAGTTTG	TCGCGCGTAA	540
ACTGGACGGC	AAGGGCTGGA	CAAAGTATCT	TTCCATTAGT	GTGCTTTGGT	GGTTGGCCTT	600
TGGCTTCATT	TATCAGTCTA	TTGGTGCCAA	TCGTCCCTAT	CGTGATTCAA	TCACAGATGC	660
AACCAATGGG	GTAGGGCAAA	TCCTCATGAC	AGCTGTTTAC	CGTGAACAGT	GGATATTCTG	720
GGCGGCTACC	AATGTCTTTT	CAATCTATCT	CTGGTGGGGA	GAAAGCCTGC	AAATTCAAGG	780
GAAATATCTA	ATTTATCTCA	TTAACAGTCT	AGTTGGTTGG	TATCAATGGA	GCAAGGCAGC	840
TAAGCAGAAT	ACTGATTTAC	TTAACTAGGA	AAAGATGTTT	GAAAGTGCTG	TTTTGAGATT	900
TCGATTAAAA	CAGATATAGT	TGATAATCAA	GGATTTATAG	TATGAAAAAG	AGGATCGGCG	960
GGTCCTCTTT	TGTTGTTGAA	AAGATAAAAA	ACTCAGTAAC	CTAGAAATAA	GACAACTGAA	1020
GCTTTACTCT	ATATTCAATT	TTTAGGAATG	AGAAGGTCTA	GATAAAATTG	GACAACTTCC	1080
TGGTCTGTGA	AATCTTGACC	TTTTTTGAGC	CACCAGGTCA	ATGTCTCGAT	AAAGTTGGAC	1140
ATGACCAAGT	GTTGGAGGTA	AGAAGTAGGC	AGATTAGGGT	GGGCTTCTTT	TAAATTATCA	1200
GCTAGCACGG	AATAGACATG	GTGTTCTAGC	TCTTTATGGA	GTTGACGGAG	GAAGTAGTCA	1260
TTTTTTGGAAA	ATAGCAGACT	GGTGATATGG	TCTTGTTTTT	TATGAAAATG	GAGAAAGAGG	1320
TGGGCGAGGT	AGTCCTCGGT	TGAAATGGCT	TGCTCTCTTT	CAAAAAGATG	ATGGAAGAGG	1380
TAGCGGCAGA	GCTGGTCCAG	AAGAAGCTCC	TTACTCTCAT	AGTGACAGTA	AAAGGTGGAT	1440
CGTCCCACAT	CTGCGAGATC	AATGATATCC	TGAACAGTAG	TGGCCTCGTA	GCCCTTAGCA	1500
TTCAAAAGTT	GTATAAAAGC	TTGATAGATG	GCTTTTTTTG	TTTTGCTGAT	ACGGCGGTCA	1560
ATGTTAGTCA	TATGGACACT	TAAGGCAAAT	TGTTCAAGAC	TGAATAAAGC	TGACGTTTTG	1620
CTTCTATCCT	TTCTTTGAGT	TTTAGTGGAT	AATGATAATG	AACAAGGTGT	TCATAAATCT	1680
ATTATAACAA	AGGAATGAGA	AATATGAAGG	CAAAATATGC	TGTTTGGGTG	GCTTTTTTCT	1740
TAAATTTGAC	TTATGCCATT	GTTGAGTTTA	TTGCAGGTGG	AGTATTTGGT	TCTAGCGCTG	1800
TTCTTGCTGA	CTCTGTGCAT	GACTTGGGAG	ATGCGATTGC	AATTGGAATA	TCAGCTTTTC	1860
TAGAAACAAT	CTCCAATCGT	GAAGAAGACA	ATCAGTACAC	CTTGGGCTAT	AAGCGGTTTA	1920

619

GCCTGCTAGG	AGCCTTG GTA	ACAGCTGTGA	TTCTCGTAAC	GGGCTCTGTT	CTAGTCATTT	1980
TGGAAAATGT	CACGAAGATT	TTGCATCCGC	AACCAGTCAA	TGATGAGGGG	ATTCTCTGGT	2040
TAGGAATTAT	TGCGATTACT	ATCAATCTGT	TAGCGAGTCT	GGTGGTTGGT	AAGGGAAAGA	2100
CAAAGAATGA	GTCTATTCTG	AGTCTGCATT	TTCTGGAAGA	TACGCTAGGG	TGGGTAGCTG	2160
TTATCCTGAT	GGCGATTGTT	CTTCGATTTA	CGGACTGGTA	TATCCTAGAT	CCTCTTTTGT	2220
CCCTTGTCAT	TTCTTTCTTT	ATTCTTTCAA	AAGCCCTTCC	ACGTTTTTGG	TCTACACTCA	2280
AGATTTTCTT	GGATGCTGTG	CCAGAAGGTC	TTGATATCAA	GCAAGTAAAG	AGTGGCCTGG	2340
AGCGATTGGA	CAATGTGGCC	AGCCTTAATC	AGCTTAATCT	CTGGACTATG	GATGCTTTGG	2400
AAAAAAATGC	CATTGTCCAT	GTTTGTCTAA	AAGAAATGGA	ACATATGGAA	ACTTGTAAG	2460
AGTCTATTCG	AATTTTCCTA	AAAGATTGTG	GTTTTCAAAA	TATTACCATT	GAAATTGATG	2520
CTGACCTAGA	AACTACCAA	ACCCATAAGC	GAAAGGTGTG	TGACTTGGAA	CGGAGTTATG	2580
AGCATCAACA	TTAGAAAAAA	GTGAAAAATA	CTTGGGTACT	ATCTTATTTG	GAATAGAGTA	2640
ATTTCTTTAT	TATTTAAATA	TTTCAAAAAT	TGGTAAGAGA	AGAGCATTGT	ATAAACTCCA	2700
GATATATGAT	TGTTAATGAT	AAAAATTTTT	CGATTAGATA	CAAAATGCTT	GACTTGGAGT	2760
CAACTCAAAG	TTATATAATA	AGATAAGTGA	GTTAGAATAG	CGTGAATTCA	GTGAATGAAA	2820
TGAGAGGAGG	TTAGCGTGTG	AATATTAAAT	CTGCCAGTGA	TTTGTTGGGA	ATTTTCAGCGG	2880
ATACGATTTC	GTATTATGAA	CGGGTTGGTC	TTGTGCCACC	GATTACTCGT	ACTGCTACTG	2940
GGATTCGTGA	TTTTCAAGAT	CAGGATATCG	AAGCGCTGGA	ATTTATTAAG	TGTTTTTCGTT	3000
CGGCGGGTGT	CTCTGTAGAT	AGTTTAGTTG	ACTATATGTC	GCTCTACCAA	AAGGGAGATG	3060
AAACGAGAGA	GGAGAGGCTT	GGTATTTTAG	AAGAGGAAAA	GCAAAAATTA	GAGGAGCGCT	3120
TGTCTCAGCT	ACAGACAGCT	TTAAATCGTT	TAAATCTCAA	AATTAAACTT	TATAAGGAAG	3180
GAAAATTTTA	AATGAAATCA	GCAGTATATA	CAAAGGCAGG	TCAGGTTGGA	CTTGCTAGCA	3240
TTGAACGTCC	GCAAATAATA	GAAGCGGATG	ATGTGATTAT	TCGTGTGGTT	CGTGCGTGCG	3300
TTTGTGGTTC	AGATTTATGG	AGGTACCGTA	ATCCAGAAAC	GAAAGCTGGA	CACAAAAATA	3360
GTGGACACGA	AGCGATTGGG	ATTGTTGAAG	AAGCTGGGGA	AGCCATTACG	ACGGTGAAAC	3420
CAGGTGATTT	TGTGATTGTC	CCTTTTACAC	ATGGATGTGG	TGAGTGTGAT	GCCTGTCTTG	3480
CTGGATTTGA	CGGTTCTTGC	GACAATCATA	TTGGCAATAA	TTTGGGGGGT	GATTTTCAGG	3540
CAGAATATAT	TCGCTTCCAC	TATGCAAACT	GGGCGCTGGT	TAAAATCCCT	GGTCAACCTT	3600
CTGACTATAC	AGAAGGGATG	CTCAAGTCCC	TTTTGACTCT	TGCAGATGTC	ATGCCGACAG	3660

620						
GCTATCATGC	GGCGCGTGTT	GCAAATGTTC	AAAAAGGGGA	CAAGGTTGTT	GTTATCGGTG	3720
ATGGGGCTGT	TGGTCAATGT	GCTGTCATCG	CGGCTAAGAT	GCGTGGAGCA	TCACAAATTA	3780
TCCTTATGAG	CCGTCATGAA	GACCGTCAAA	AGATGGCTAT	GGAGTCAGGT	GCGACAgcTG	3840
TTGTTGCAGA	ACGTGGTCAA	GAAGGAATTA	CCAAGGTGCG	TGAAATCCTC	GGTGGAGGAG	3900
CAGATGCAGC	ACTTGAATGT	GTTGGTACGG	AGGCTGCTAT	AGAACAGGCG	CTAGGTGTTC	3960
TTCATAATGG	AGGGCGTATG	GGCTTTGTAG	GAGTCCCACA	CTATAATAAT	CGTGCTCTTG	4020
GTTTCGACATT	TATGCAAAAT	ATCTCTGTAG	CAGGTGGGGC	AGCTTCTGCT	ACAACATACG	4080
ATAAGCAATT	TTTACTAAAA	GCCGTCCTTG	ATGGTGATAT	CAATCCAGGT	CGCGTCTTTA	4140
CTTCAAGTTA	TAAACTGGAA	GATATCGACC	AAGCCTATAA	AGATATGGAT	GAACGTAAGA	4200
CAATTAAGTC	TATGATTGTA	ATCGAATAAA	AAACGAATAG	GAGTTTTAGA	ACTCTATTTCG	4260
TTTTTTTATGT	TATCCTATTC	TTGATTTAGG	GTACTTTCTC	TTAATGTCAG	TCTGGTTCCC	4320
AGCATGGTCA	GGCTAGGGAT	TTTCCGACCG	TGGAGGACTT	CCTTGTTAAG	AATATCCATA	4380
CCTGCTCGGC	CCATTTCTTC	AGTATAAACT	GTAATACTAG	AGAGGGGAGG	ATAGACCTGT	4440
TTGGTCAGAC	TAGTGTCGTT	AAAGGAAATG	AGGCTGACGC	GATCTGGCAG	GCTGATTCCA	4500
GCTTCTTGGA	GGGCACGGAG	GGCACCGATA	GCTAAACTAT	CGCTGGCTGC	GAAAAATGCT	4560
GGCGGAAGTT	GGTCTCCCAA	GCTCTGAATG	GCCTCCTTCA	TTAAGTCATA	GCCAGACTGG	4620
GCAGTAAATC	TTCCTTGAAA	GACCAGTTCA	TCATGATAGA	TTCCCCTCGC	TTGACTATAG	4680
TTTTTTGAAGT	TTTCTAGACG	CTTGTCCTGA	ATGATTTCTT	CTTGGTCTGT	TGTTTCTTCA	4740
AGGCCTGTTA	GAATCCCGAT	ACGGTCCATT	CCTTGACTGA	GGAAATAATC	GACAACCTGT	4800
TTCATAGCAG	TGTAAAAATC	CGTGATAATA	CAGGTATGTC	CCAGGGAAAG	TGTATCGCTG	4860
TCTAGAAATA	CAAGAGGCTT	TTGGTATTCT	TCAAAGGCAG	AAATCTGAGC	TCGACTAAAC	4920
TTTCCGATGC	AGAGAATCCC	AATCACTTCC	TCGCTTAGGG	TAAAAGGGTG	GTCATTAAAA	4980
TAGCGCAAGA	TATCATAGTC	CAACTCTTGG	GCTCTTTTTT	CTATTCCTAG	GCGAATCTGG	5040
TAGTAGTAGA	GGTCGTCCAG	CTCCCCTTGT	TCGCTGACCC	ATTGGATAAT	GGCAATCTTT	5100
TGCTTGGGTT	TGTGGGACTC	GCCTGTCTTG	AGGTGCTTGG	TGTAGCCCAG	CTCTTCAGCA	5160
ACGGTTAAAA	TACGGTGTCT	GGTTTCTTCT	GTAACAGATA	GGCTCTGGTC	GCGGTTGAGG	5220
ACGCGGGATA	CGGTCGCGAT	AGAGACAGAG	GCTAGCTGTG	CAATGTCTTT	TAAGGTAGCC	5280
ATAAATCCTC	CTTGATTAGG	TTAGTATATC	ATGTTTTTCT	TCTTTTTTACT	GATATTTTAC	5340
TAAAATTTTA	GTAAAAAGGA	TTGACCTTGG	AAAATTCCTT	GGATATAATA	GAAAGAAAAC	5400
GATTACACGT	TAAGATGGCT	TAACGGACAG	TCAAAGGAGA	ATTCATATGG	CACAACATCT	5460

621

TACTACTGAA	GCCCTTCGCA	AAGACTTTCT	TGCTGTTTTT	GGTCAAGAAG	CAGATCAAAC	5520
CTTCTTTTCA	CCAGGCCGCA	TTAATTTGAT	TGGTGAACAC	ACAGACTACA	ACGGTGGGCA	5580
CGTTTTTCCT	GCTGCTATTT	CCTTGGGAAC	TTACGGTGCA	GCTCGTAAGC	GTGACGACCA	5640
AGTCTTGCGT	TTCTACTCAG	CTAACTTTGA	GGACAAGGGC	ATTATCGAAG	TGCCTCTCGC	5700
TGACCTCAAG	TTTGAAAAAG	AGCACAACTG	GACCAATTAT	CCAAAAGGTG	TCCTTCATTT	5760
CTTGCAAGAA	GCTGGGCACG	TGATTGACAA	AGGTTTTGAT	TTTTATGTTT	ATGGAAATAT	5820
TCCAAATGGT	GCTGGCTTGT	CTTCTTCTGC	ATCCTTGGA	CTCTTGACAG	GAGTCGTGGC	5880
TGAGCATCTC	TTTGATTAA	AATTAGAGCG	TCTCGATTTG	GTTAAAATCG	GCAAACAAAC	5940
AGAAAACAAC	TTTATCGGAG	TAAACTCTGG	CATTATGGAC	CAGTTTGCTA	TTGGTATGGG	6000
GGCAGACCAA	CGTGCTATTT	ACCTAGATAC	TAATACTTTA	GAATACGACT	TGGTGCCACT	6060
TGATTTGAAG	GACAATGTCG	TTGTTATCAT	GAACACCAAC	AAACGCCGTG	AATTGGCGGA	6120
CTCTAAATAC	AATGAACGTC	GTGCTGAGTG	TGAAAAAGCA	GTGGAAGAAT	TGCAAGTTTC	6180
CTTGGATATT	CAGACTCTGG	GTGAATTGGA	CGAGTGGGCC	GTTGACCAAT	ATAGCTATCT	6240
GATTAAAGAT	GAAAATCGTT	TGAAACGTGC	TCGCCATGCT	GTGCTTGAAA	ACCAACGTAC	6300
CCTCAAAGCT	CAAGTAGCAC	TCCAAGCAGG	AGATTTGGAA	ACATTTGGAC	GCTTGATGAA	6360
TGCGTCACAC	GTTTCTCTGG	AGCATGATTA	TGAAGTAACT	GGTTTGGAAT	TGGATACCCCT	6420
TGTTTCACACA	GCTTGGGCAC	AAGAAGGAGT	TCTCGGTGCT	CGTATGACAG	GGGCTGGTTT	6480
TGGTGGCTGT	GCcATTGCCT	TGGTTCAAAA	AGATACTGTT	GAGGCCTTTA	AGGAAGCTGT	6540
AGGCAAACAC	TACGAGGAAG	TAGTTGGATA	CGCTCCAAGC	TTCTATATCG	CTGAAGTTGC	6600
AGGTGGCACT	CGCGTCCTTG	ACTAGTCAAA	AGGAGGCTCT	ATAGTGACCT	TAGTAAATAA	6660
ATTTGTAACA	CATGTCATTT	CTGAAAGCTC	ATTTGAGGAA	ATGGATCGAA	TCTATCTGAC	6720
CAATCGTGTT	TTGGCACGAG	TGGGAGAAGG	TGTTTTGGAA	GTTGAGACCA	ATCTGGATAA	6780
ATTGATTGAC	CTCAAGGACC	AGCTGGTTGA	AGAAGCCGTT	CGATTAGAGA	CGATTGAGGA	6840
TAGTCAGACT	GCGCGTGAAA	TCCTTGGTGC	TGAACTGATG	GATTTGGTGA	CTCCTTGTC	6900
AAGTCAGGTC	AATCGTGATT	TTTGGGCAAC	CTACGCCCAC	TCTCCAGAAC	AAGCGATAGA	6960
GGATTTTTAC	CAACTCAGTC	AGAAAAATGA	CTACATCAAA	CTCAAGGCCA	TTGCTAGAAA	7020
TATCGCTTAT	CGTGTTCCAT	CTGACTACGG	AGAACTTGAA	ATTACCATCA	ATCTCTCTAA	7080
GCCTGAAAAA	GATCCCAAAG	AGATTGTGGC	AGCCAAGTTG	GTGCAAGCTA	GTAATTATCC	7140
TCAGTGTCTAG	CTTTGTCTAG	AGAATGAGGG	CTACCATGGT	CGAGTTAACC	ACCCAGCTCG	7200

622

TAGCAATCAC	CGTATTATCC	GTTTTGAAAT	GGTTGGTCAG	GAATGGGGTT	TCCAGTATTC	7260
GCCCTATGCT	TACTTTAATG	AGCATTGTAT	CTTTTTAGAT	GGCCAGCATC	GTCCCATGGC	7320
CATTAGTCGT	CAGAGTTTTG	AACGTCTGTT	GGCTATCGTA	GACCAGTTTC	CAGGATATTT	7380
TGCTGGATCT	AATGCCGACC	TGCCGATTGT	GGGGGGCTCT	ATTCTAACTC	ATGATCATT	7440
TCAGGGAGGC	CGTCACGTAT	TTCTATGGA	ATTGGCTCCC	TTGCAAAAGG	CCTTCCGATT	7500
TGCTGGTTTT	GAGCAGGTCA	AGGCTGGAAT	TGTCAAGTGG	CCCATGTCTG	TCCTACGTTT	7560
GACTTCGGAT	TCCAAAGAGG	ATTTGATCAA	TTTGGCTGAT	AAGATTTTGC	AGGAATGGCG	7620
CCAGTATTCA	GATCCTGCAG	TGCAGATTTT	GGCAGAGACA	GACAGGACAC	CGCATCACAC	7680
TATCACACCC	ATTGCCCCGA	AACGCGATGG	ACAGTTTGAG	TTGGACTTGG	TCTTGCGAGA	7740
CAATCAGACT	TCAGCAGAGT	ATCCTGATGG	TATCTATCAT	CCCCACAAGG	ATGTCCAACA	7800
TATCAAGAAG	GAAAATATCG	GCTTGATTGA	GGTCATGGGC	TTGGCAATCT	TGCCACCACG	7860
TCTGAAAGAA	GAAGTGGAGC	AAGTCGCTAG	CTATCTTGTA	GGAGAAGCTG	TTACAGTTGC	7920
CGATTATCAT	CAGGAGTGGG	CAGACCAACT	CAAATCCCAA	CATCCAGACT	AACGGATAAA	7980
GAAAAAGCCC	TTGCAATCGT	CAAGGACTCT	GTGGGTGCTA	TCTTTGCGCG	TGTACTTGAG	8040
GATGCAGGAG	TCTACAAGCA	GACAGAACAA	GGGCAGACAG	CCTTTATGCG	CTTTGTGGAA	8100
CAGGTCGGAA	TTTTACTAGA	CTAGGAGCTT	TCTCGG			8136

(2) INFORMATION FOR SEQ ID NO: 76:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10011 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 76:

CCCATAGTGA	AGAGTGGCCA	TAAGAAGGTC	TTCTAGGCTT	AATTTAGGTT	TTCGTCCACC	60
TTTTGCGTGT	TTAAGTTGAT	AAGCTGTTTT	TAACACAGCT	GAACATCTCT	TCAAAAGTCG	120
TGCGCTGAAC	ACCAACAAGA	CATTTAAATC	GTGTATCAGT	TAGTTGTTTA	CTTGCTTCAT	180
CATTCATAGA	ACTACTATAC	CATGTTTTGT	TTGCGAGGAA	GTCTAATATT	GTCAAATACT	240
GGAACGCTCA	TTGCTGGGAT	ACGGAATAAG	ATTGGCCCAG	CTTCGATAAC	TGGGATACCT	300
GGTTCAAAAC	CAAGGTCTGT	TGCAGCGATT	GGTGTAAGA	TATCGTAACC	TTTCATAAGG	360
TCTTCGTTTA	CATCTTTCAC	CATAACTGCA	TCACAGTGAA	CATCGTAACC	ACGGTTTGAA	420
AGTTCTTCTT	CTAGAGCACT	TTTAATTTGG	TGACTTGAGT	TAACACCTGC	ACCGCAGGCA	480

623

GCAAGAATTT TAATCATTTG GATTTCTCTC GATTTTATTT TTTAATAGAC AAGATTAAGC	540
GGTTGCTTCA GCAATGTAAG CATAAAGGGC TTCTGGTTCA GAAATTTTGT ATAGGTCTTC	600
AAGATGACCA TTCCTGTGA AGAAGTCCAT TAACTGAGCA AGAATGTTCTG TTTGACTTGA	660
ACTTGAATTA TTGATGATAA AGAAGAGCAA GGATACTTCT ACTTCCTTAC CTGGCGCAAT	720
CATATTATGG AAAGTCACCG GTTCTCTCTA TCGAACAACC ACCACTTTCT CAGCTAGATT	780
ATGAACAATA TCTGTGTGAG GAATCATTAC ATTTGCAAGT CCTTTCCTAG AAATTCCATA	840
TATAAACCAG TTGGAAATGA CTTTTCACGC GTGATCAAGG CTTACGATA AGTTGGAGTG	900
ACAATTTCTC GTTCTTCCAA CAAGCTTGCT ACCTGATCAA AAAGTTATTC TTGATTATCC	960
GCTTCTAAGC AAAACACAAG GTTTTTGTCA AAGAAATAAT CTAATACCAT AAGGTTTTCC	1020
CTTCTTTCCA TTAACTTTAT GCTATAAGTA TAACACTATA TGAAATCGTT GTTAATTACT	1080
TTCTATTCTT TTTTGTCTCT TTTTTTATAT TTTTGTTTTG TTTATAGTTT GTTATATAAA	1140
AATAAACACA CAAACAAATA CTCCAAGCAT TTTTCTGTTC TAATACTCAA TGAAAATCAA	1200
AGAGCAAACCT AGGAAGCTAG CCGCAGTTGT TCAAAACACA GTTTTGAGGT TGTAGATGAA	1260
ACTGACGAAG TCACTCAAAA CATGGTTTTG AGGTGTGAGA TGAAACTGAC GAAGCAACAg	1320
CCATACATAC GGTAAGGCGA CGCTGACGTG GTTTGAAGAG ATTTTCGAAG AGTATAAAAA	1380
CTAAAAAAGC AGACCATCTA AGCCTGCTTT ACTATTGATT CTTATATAAA TTTCTGTGA	1440
ACAAGGAAAG GCATTTCTGA TAACTTATTC TTCATCCATA CTCAAGACGC TGAGGAAGGC	1500
TTCTTGCGGA ACTTCAACTG ATCCGATGGA TTTTCATGCGT TTCTTACCAG CTTTTTGTTT	1560
TTCAAGGAGT TTACGCTTAC GAGAAACGTC ACCACCATAA CATTTAGCAA GTACGTCTCT	1620
ACGAAGGGCC TTGATATCAG TACGAGCGAC AATCTTGTGT CCAATAGCCG CTTGGATTGG	1680
AACTTCAAAT TGTTGGCGAG GGATGATTTT CTTGAGTTA TCAACGATGA GTTTCCCACG	1740
TTCGTAGGCA AAGTCCTTGT GAACGATAAA GCTGAGGGCA TCCACCTTAT CTCCATTGAG	1800
AAGAATATCC ATTTTCACCA GCTTAGATGG GCGATATTCT GACAATTCGT AGTCAAAGCT	1860
TGCATAACCA CGTGTGGAAG ACTTAAGTTT ATCAAAGAAG TCAAAGACAA TTTTCAAGCAAG	1920
AGGAATTTGA TAGATAACAT TGACACGGTT ATCATCAATA TAGTCCATAG TCACAAAGTC	1980
CCCACGCTTA CGCTGAGCTA GCTCCATTAC TGCTCCGACG AACTCCTGTG GTACCATGAT	2040
TTGCGCCTTG ACATAAGGCT CTTCAATGGT CGCAATCTTA GTTGGGTCTG GAAACTCAGA	2100
TGGGTTAGAC ACATCCATAG ACTCACCGTC GGTCAAATTA ACTTTGTAAA TAACAGACGG	2160
AGCTGTCATG ATGAGGTCAA TATTGAACTC ACGCTCTAAA CGTTCCTGGA TAACATCCAT	2220

624

ATGGAGAAGT CCAAGAAATC CACAACGGAA ACCAAATCCA AGTGCCTGAG ATGTTTCTGG	2280
TTCAAACCTGA AGACTAGCAT CATTCAGTTG CAATTTTTCa AGcGCTTCAC GCAGGTCATT	2340
GTAATTGTTT GATTCGATTG GGTAGAGACC CGCAAAGACC ATAGGATTCA TCTGCTTATA	2400
ACCATGTAAT GGTTCTGCCG CAGGATTGGT TGCCAAGGTA ACGGTATCAC CCACACGAGT	2460
ATCCTGAACC GTCTTGATAG ACGCCGCAAT GTAACCAACA TCACCAGTCG CAAGGAAATC	2520
ACGACCAACC GCTTTTGGTG TAAAAATACC GACTTCGGCC ACATCAAAGG TCTTACTATT	2580
GCTCATGAGC TGAATCTTAT CACCAGGTTT GACCACTCCG TCCATGACAC GCACTTGGAG	2640
GATAACCCCA CGGTAAGCAT CGTAAACAGA GTCGAAAATC AAGGCCTTAA GTGGCGCCGT	2700
CACATCACCC GTTGGTGCTG GTACTTTTTC TACAATTTGC TCGAGGATTT CTTCAATCCC	2760
AATACCAGCC TTGGCAGAAG CCAAAACTGC TTCACTGGCA TCCAAACCAA TCACATCTTC	2820
AATCTCTGTA CGCACGCGCT CCGGATCTGC AGCCGGCAGG TCAATTTTAT TAATGATAGG	2880
CATGATTTCC AAATCATTAT CCAAAGCCAG ATAAACGTTG GCAAGAGTTT GAGCCTCAAT	2940
TCCTTGAGCC GCATCGACCA CCAAATAGC ACCCTCACAG GCAGCTAGCG AACGTGAAAC	3000
TTCATAGGTA AAGTCAACGT GCCCTGGTGT GTCAATCAAG TGGAAAATAT AAGTTTCCCC	3060
ATCTTTTGCA GTGTAATTCA ACTCGATGGC ATTCAACTTA ATAGTAATTC CACGTTCCCG	3120
CTCTAGCTCC ATGCTATCCA AAAGCTGGGC CTGCATTTCA CGACTTGAAA CCGTCTCTGT	3180
TTTTTCCAAA ATGCGGTCTG CTAGAGTTGA TTTTCCGTGG TCAATATGGG CGATAATAGA	3240
GAAGTTACGG ATCTTCTCCT GTCGTTTTTT CAATTCTTCT AAGTTCATGA TTCTCTTCCT	3300
TTCAGGGTAT CTATTTATTA TAAATTGTTT TTGATATTTT GACAAGACCA TACCCTGCTA	3360
GGAGTACTAA TCTTCAGCGA CAAAGCCGTC ATTTTCGATA AAGTGGTGTT CTGTCATTCC	3420
TTGGTCTGTA AAGACAATCC CGTGAAGGAC ACCACCATAA ACAGCTCCTC CATCCATTCC	3480
AATCTTGCCA TCTTCTGTAG TCCAAAGCTC AGATGTACCG CGTTCCTGCT GTAACAAACC	3540
ATAGACCGGT GTATGACCGA AGACAATGGT TTTTCCAGTA TGATTTTCAG CTCCGTGGAA	3600
TGGTTTTCTA AGCCATACTT TTTTATAATC TGTGTTTCA TGCCAGTCGT CCAAGGTCAA	3660
ATCAATACCT GCGTGAACAA AGATATACTT GTCTGTCTCT ACTACAAATG GCATTTGACG	3720
AATGAATTCG ACCAAGTCTG CCGCTTCAGC GgCAACCCGC TTGGCATCTT CTACTCCATC	3780
AACTGGTGCA TCCAAGGGAC GACCTAGGAT AGAGTTAATG GTTGTATCTC CACCATTGCG	3840
ACTATAATGG TCATAACTTT CTTCTGGGTC ATCTAGCCAA GTCAAAAACA TATACTCGTG	3900
GTTTCCGGAC AAACAGATAG CCCCTTGATT GTCCACCAAG TCCTTGACCA TTTCAAGAAC	3960
ACGGTGACTA TCCTCACCTC TGTCAATCAA ATCACCTAGA AAGAGCAACT GGGGCTGACC	4020

625

ATCCCAGGTT	TTGAGAAGGT	CTTCCAGCAT	CCCAGCTTTT	CCGTGAACAT	CTCCAATTAC	4080
ATAATAATCT	GTCATCTTAT	TTCTCCCTGT	TTCTCAACAA	TTCTCTTGCT	TGCGTCAGGG	4140
CTGCTTCTGT	CACATCATCA	CCTGCCAACA	TCTTGGCAAC	TTCTTCCACT	CGCTCTTCGA	4200
CCGTCAAGAG	ACGAACAGTC	GAAACCGTTG	AATGGTCATT	ACTAATCTTC	TCAATAAAGA	4260
ATTGATAATC	TGCAATCGCA	ATTACTTGTG	GCAAATGGGA	GATAGCCAAA	ACCTGACCAT	4320
GCTGACCAAT	TTTATGAATT	TTCTGAGCAA	TAGCTTGAGC	AACACGACCT	GAAACTCCCG	4380
TATCCACCTC	ATCAAAGACA	ATGCTAGTCT	TGCCTTCTTT	ACGTGAAAAG	GCAGACTTAA	4440
TGGCTAACAT	GAGACGAGAT	AATTCCCCTC	CAGAAGCAAC	CTTAACCAAG	GGTTTAAAGT	4500
CTTCTCCAGG	GTTGGTTGAA	ATATAAAACT	CAACCATTTT	ATTTCCCTCA	CGACTGAATT	4560
TTCCCTTACT	AAAACGAACC	TGAAACTGGG	CTTTTTCCTT	ATAAAGATCT	TGCAGTTCTT	4620
GTTTAATCTC	AGCTTCGAGT	TGCTGAGCCA	AATTATGACG	AGCAGAAGCA	AGTTGACCTG	4680
CCAAATTGAC	AAGATTGACT	TCCAACCTCT	TAAGCTCTGC	TTCCATGTCC	TCAGACGAAA	4740
GATTATTGCC	TGTCAAGAGA	TTGTATTCTT	CCGTAATCTT	GGCAAAATAA	AGCAAAACAT	4800
CATCAACAGT	CCCACCATAC	TTACGAGTAA	TAGTATGAAG	GAGGTCCAAA	CGATTCTCAA	4860
CCTGCATCAG	GCGATTGCCA	TCAAAATCAA	GGTCCTCAAT	GATAGCTTCC	AAACGTTTGC	4920
TAAATGTCTC	TAAAACATAG	TAGGTCTCAG	ACAGATAGCT	TGAAATTTCA	CGGTATTCAG	4980
GATCATACTC	TTGACACTT	TCCATGTCAT	TCATAGCTGA	ACGAACATTG	GCCAGACTTG	5040
AAAAATCTTC	ATTGTCCAAC	ATACTGTAGG	CATTGGTCAG	TGTATCCGCA	ATATTTTTGT	5100
GGTTGAGGAG	TTTATCTCGC	TCTTGATTGA	GAGCCAAGTC	TTCTCCAGCC	TGCAAGTTTG	5160
CTGCCTCAAT	CTCTGCCATT	TGAAAATCCA	ACATTTTCGAT	ACGTGCCTTG	TGTTCCCTGTT	5220
GGTTTTTCTT	GACTTCCAGA	ACCTGCTTGC	GCATTTTCCG	ATAGGCATCA	AAACTCGTTT	5280
GATAGGTTTC	TTTCAAGTCC	CAAAAAGCGG	CATCACCAAA	TTCATCCAAC	ATCTGGATAT	5340
GCAGTTGGGG	ACGCATTAAC	TCCTCATGGT	CATGCTGACC	ATGAATATCT	ACAAGATGTT	5400
GCCCAATAGC	TCGCAAAACA	GACAGATTAA	CCATCTGACC	ATTTACACGG	CTGATACTAC	5460
GACCATTTTG	CAAGATTTC	CGACGGATGA	TAATTTTCATC	ACCTAATTCT	AAACCTTGCT	5520
CATCAAAAAT	TTCTGTAAA	AGACGACTAT	TCTCAACTGA	GAAAAGCCCC	TCAATCTCTG	5580
CCTTTGGTGC	ACCATGACGA	ATAACATCTG	TCGTGCGACG	AGCTCCCAAC	ATCATATTCA	5640
TGGCATCAAT	GATAATCGAC	TTCCCTGCAC	CCGTTTCACC	AGTCAGGACA	GTCATCCCCT	5700
TTTCAAAATT	GAGGGAAATA	GCCTCAATAA	TGGCAAAGTT	TTTTATCGAA	ATTTCAAGTA	5760

626

ACATATAGAC	CTACCAATTT	TTTACTTGTT	CAAAGATTTC	CTCTGCTAGA	CTTCCACTTC	5820
TGGCAATGAC	TAAAATCGAG	CTATCATCAG	TCAAACAGCT	AAAAATCTTG	TCTGCAAAAG	5880
TCTCGATTAA	CTGAGCTTTT	ACAAAAGCCG	TATTTCTTGG	AATAACTTGG	AGATTGATCA	5940
TCTTATCCAT	CAATTCAGCC	GATTCGATAT	TGTCTTCAGC	CAGTTGCAGA	CTTTTTACGA	6000
TTGATTTTGG	CAATTCGTAG	ACATAGGTGT	TGTCTCTCAA	AGGAATTTTG	ACAATACCTA	6060
ACTCTTTGAT	ATCTCGGGAT	ACCGTCGCCT	GAGTGGCAGT	GATACCTGCT	TCTTTCAAAT	6120
GTTCTACAAT	TTCTTCTTGC	GTGCCGATTT	GATAATCTGT	CACCAATCTT	CTAATTTTTT	6180
CAAGTCTCTC	TTTTTTTATTC	ATTTTTTAAAT	TGACTATGCG	CCCTCTCTAC	TGCTTCTTTA	6240
ATCTCAGCAA	GAATCTGATT	GCTTGCTGAC	TTTTCTTTTT	TCAAATACGC	TAAAAATTCA	6300
ATATTTCCAT	GTCCACCTTG	GATGGGAGAA	AAGTCCAAGC	CAAGGACTGA	AAAACCTACC	6360
TCTACTGCCA	TAGCTGTTAC	AGATTCAAGG	ACATTCTGAT	GAACCTTAGC	ATCTCGAATA	6420
ATTCCATTTT	TCCCAATCTG	CTCACGTCCT	GCCTCAAAC	GAGGTTTGAC	AAGTGCTACC	6480
ACCTGACCTT	GATCAGCCAA	GACACGGTGC	AAGGCTGGCA	AAATCAGACT	AAGGGAAATG	6540
AAACTCACAT	CAATACTGGC	AAAGCTCGGC	TCCTGCTCGA	AATCAGTCTT	TTCAGCATAG	6600
CGGAAATTGA	ACTGCTCCAT	GCTGACAACT	CGTGGGTCTT	GGCGTAATTT	CCAAGCCAAC	6660
TGATTGGTAC	CAACATCGAC	TGCAAAGACC	AACCTGGCAC	TATTCTGTAG	CATGACATCG	6720
GTAAAACCTC	CAGTAGAGGC	CCCGATATCA	ATCGTAGTCG	CGCCATCCAC	CGACAAATCA	6780
AAGACCTGCA	AGGCCTTTTC	CAGTTTCAAA	CCACCACGGC	TGACATACTT	GAGTTTCTCC	6840
CCCTTGAGTT	TTAATTCGGT	GTCATCTGGA	ATTTTCTCTC	CTGGCTTGTC	AAACCGTTCT	6900
CCATTAAGGA	CTGCTACGAC	TAGGCCAGCC	ATCACACCTC	GCTTGGCCTG	CTCTCTCGTT	6960
TCAAACAACC	CCTGTTTATA	AGCTAGTACA	TCCACTCTTT	CCTTAGCCAT	TGATTCTCAA	7020
ACTTTCTACT	ACACTTACAA	TCGATTCTGT	TTCAAAGGGA	AGCTGCTGGG	CAATTTCTTC	7080
TAATTTTTCA	TTAGCTTGAT	CCAGGGTTTG	GTTACAAAAG	GCAATGGACT	CTTCCAAGCC	7140
CAACAGGGCA	GGATAGGTTG	ATTTTTCTGC	CTGCAGATCC	TTTTGAGGTG	TCTTGCCGAT	7200
TTCTTCAAAA	CTAGCTGTCA	CATCCAGTAC	ATCATCTCTG	ACTTGAAAAG	CAAGTCCAAT	7260
CAATTCACCC	ACAGTTTTCA	GCTTCACCTG	CATTTCAGGT	GACAATTCAG	CTATAATAGC	7320
TGCCGCTTGG	AAGGGATAGG	CTAGTAACTT	CCCAGTCTTA	TTGGCATGAA	TAGTCTGAAG	7380
TTCTTCCAAA	GACAAGTGCT	GGTGTTCGCC	CTCCATATCC	AAAACCTGCC	CTGCTACCAT	7440
ACCCAGACTA	CCTGAAGCAA	GGGATAAGTT	GGCAATCAAG	TCCACCTTAA	TCTGACTTGG	7500
CAAATCTGCC	TGCGCAATCA	AGGCATATGA	GTCTAAGAAT	AAGGCATCTC	CAGCCAAAAT	7560

627

GGCCATAGCT	TCACCGAATT	TCTTGTGATT	GGTTAACCGC	CCTCTTCGAT	AATCGTCATC	7620
ATCCATAGCA	GGAAGGTCAT	CGTGAATCAA	GCTCCCTGTA	TGAATCATCT	CTAAGGCAGT	7680
AGCTACCTGC	GCGTGAGCAG	GTTTGATGGT	AACCTGCAAG	GCTTCCAGAA	CTTCTAACAA	7740
GAGAAAAGGC	CGAATACGCT	TGCCACCAGC	ATGAATAGAA	TAGAGAACAG	ACTCCCGTAA	7800
ACTAGAGGCA	AACTGCTGGT	CTCCATAAAA	ATCTTCCAAA	GCCGACTCGA	CAAGAGCTAA	7860
TTTTTCTTGC	TTTTTCATTC	AAAATCACTT	TCTGTTCCGT	CTTCTTGCAT	GACCTTGACC	7920
AAGGTCTTTT	CAGCCTTGTC	CAGCGTAGCT	TGGAGCTCTT	TTGACAAGAC	CATGCCCTTT	7980
TGAAAGGCAG	TAATCGCATC	TTCCAGAGCA	ATTTACCCAT	TTTCCAAACT	TTGGACAATG	8040
GTTTCCAGTT	CTGCTAGATT	TTCTCAAAT	TTCTTTTGTT	TTGACATCTT	TAACCTCTAA	8100
TTCTACTTGA	CCATCTCGCA	TCAAAAGCGT	TACTTGGTCT	TTTTTCTTCA	AACTCTCAAC	8160
CGAATCTACA	ACGGACTCTT	CTTTTTTGAC	AATAGCATAA	CCACGCGCCA	CGATTGCGCT	8220
AGTATCCAAC	ATGAGCAAAG	CTTCCGAAAG	TCGCTTGGCC	TCAGCAACCT	TGGCGTCATA	8280
AACTAACGCC	ATTTGGCTAC	CTAAGAGCTT	GTCCAACGT	CCTAAACGGT	CTTGATAGCG	8340
TTGGATTTTG	GTAACAGGTG	ATAATTGTAC	TAATTGATGA	GTTCTTGCTT	GAACATAATTG	8400
TTTGTTATCA	GAAATCCGAG	TTGCAAACT	TTGTTTCAAA	CGCAGTTGCA	GTTGGTCCAA	8460
GCGTTGCAAA	TAACCGTCAT	ACAAGCGCTC	AGGTTGTCTA	AAGATAACAG	ACTGACTGCA	8520
TTTTTTCAAA	GCCTCTTGTT	TCTTAGATAG	AACATTTTCGG	ACTGCCGTTA	CCATCCGTTT	8580
TTCTTGATTT	TGCAAATGAG	CTAATACATC	CAACTTGGTC	ACAGGTGTTG	CCAGTTCAGC	8640
CGCCGCTGTT	GGCGTTGCAG	CGCGTCGATC	TGCCACAAAA	TCTGCCAAGG	TCACATCCGT	8700
CTCATGCCCC	AACTAGAGA	TAAGTGGCAA	ACGAGATTCA	AAAATAGCTC	GTACCACAAT	8760
TTCTTCGTTA	AAGGCCCAGA	GATCCTCAAT	AGAACCACCT	CCACGACCAA	TAATGAGCAA	8820
ATCCAAATCG	TCCCGTTGAT	TAGCACGCGC	AATATTTCTA	GCAATTTCTT	CCGCAGCCCC	8880
TTACCTTGA	ACCTTGGTCG	GATAAAGAAG	GATGTCAACA	CCTGGGAATC	GCCTGCTGAC	8940
GGTCGTGATA	ATATCTCGAA	TAACGGCTCC	ACTACGGCTG	GTTACTACAC	CAATTCTCTT	9000
AGAAAATTGG	GGCAGAGCTT	GCTTGAAGCG	TTCTTGAAAC	AGGCCTTCTT	CTGTCAATTT	9060
TTTCTTAAGT	TGTTCAAAC	GAATCGCAAG	CGCCCCAACC	CCATCAGGCT	CAGCTTTTTC	9120
AATGATGATG	GAGTAGCTAC	CACTTGGTTC	ATAGACCTGT	ACACGCCCAA	TCACATTGAT	9180
CTTCATTCCT	TCTTCCAGGT	CAAACCCTAA	TTTCTGATAA	ATCCAGACC	AGATGGTCGC	9240
TTGAATAACT	GCATGGTCAT	CCTTTAGGGA	GAAATATTGG	TGAGTAGGTC	GTTTACGAAA	9300

628

GTTGGAAACT	TGACCAGTTA	AATAGACCCG	TTCCAAGTAT	GGGTCTTTAT	CGAATTTTCAT	9360
TTTCAGATAC	TTGGTCAAAG	TTGTTACCGA	TAAATACTTT	TCCATCTCCA	CCTACTATTC	9420
ATTTACTTGC	TCTTTCATGG	GTATTATTAT	ACCAAAAATA	TGCCTAAAAA	TCTCCATTTA	9480
TGTACCATTA	TGAGGGAAAA	ATAGAAAAAG	GAGGCAAGGC	CTCCACATGT	GATTATTTGC	9540
TGTTTCGAGC	TTCTTCCAAA	ATCTTTGCAA	TCTTGGTCGT	CAACAGGTCG	ATAGCCACGG	9600
TATTGCTAAC	CCCTTCAGGA	ATGACGATAT	CAGCATAACG	CTTAGTTGAC	TCGATAAACT	9660
GGTGGTACAT	TGGTTTGACC	ACACCTAAGT	ACTGGTTAAT	AACGCTATCA	AGGCTACGGC	9720
CACGCTCCTC	CATATCACGC	TTGATACGAC	GAATAATGCG	CACATCGTCA	TCCGTATCCA	9780
CAAAAATCTT	GATATCCATC	AAATCGCGCA	GACGCTTGTC	CTCCAAGACC	AAAATACCCT	9840
CAACGATAAA	GACATCTTGA	GGTTCCTGAC	GATAGGTCTT	GCTACTCCGT	GTATGCTCTG	9900
TATAGTCGTA	GGTCGGGATG	TCCACCGGAC	GCCCTGCCAA	CAATTCCTTA	ATCTGCTCGA	9960
TCATCAAGTC	TGTATCAAAG	GCAAAAGGAT	GGTCATAGTT	GGTTTTGACG	G	10011

(2) INFORMATION FOR SEQ ID NO: 77:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5365 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 77:

CGTGTGGTCT	TAAAAATAGA	AGACAAAGAA	CAAACGTGTG	GAGGCTTTGT	CCTTGCAGGC	60
TCAGCCCAAG	AAAAAACCAA	AACAGCTCAA	GTTGTGGCTA	CTGGACAAGG	TGTTTCGTACC	120
TTGAACGGTG	ACTTGGTTGC	TCCAAGTGTT	AAAACTGGAG	ATCGTGTCTT	AGTTGAAGCC	180
CACGCAGGTC	TTGATGTCAA	AGATGGCGAT	GAAAAGTACA	TCATCGTAGG	CGAcTAACAT	240
TTTGGCAATC	ATTGAGGAAT	AGAAGGAGAA	AGTAAGTATG	TCAAAAGAAA	TTAAATTTTC	300
ATCAGATGCC	CGTTCAGCCA	TGGTTCGTGG	TGTCGATATC	CTTGCAGACA	CTGTTAAAGT	360
AACCTTGGGA	CCAAAAGGTC	GCAATGTCGT	TCTTGAAAAG	TCATTCGGTT	CACCCTTGAT	420
TACCAATGAC	GGTGTGACCA	TTGCCAAAGA	AATCGAATTG	GAAGACCATT	TTGAAAATAT	480
GGGTGCTAAG	TTAGTATCAG	AAGTAGCTTC	TAAAACCAAT	GATATCGCAG	GTGACGGAAC	540
TACGACTGCA	ACAGTCTTGA	CCCAAGCTAT	CGTCCGTGAA	GGAATCAAAA	ACGTCACAGC	600
AGGTGCAAAT	CCAATCGGTA	TTCGTCTGG	GATTGAAACA	GCAGTTGCCG	CAGCAGTTGA	660
AGCTTTGAAA	AACAACGCCA	TCCCTGTTGC	CAATAAAGAA	GCTATCGCTC	AAGTTGCAGC	720

629

CGTATCTTCT	CGTTCTGAAA	AAGTTGGTGA	GTACATCTCT	GAAGCAATGG	AAAAAGTTGG	780
CAAAGACGGT	GTCATCACCA	TCGAAGAGTC	ACGTGGTATG	GAAACAGAGC	TTGAAGTCGT	840
AGAAGGAATG	CAGTTTGACC	GTGGTTACCT	TTACACAGTAC	ATGGTGACAG	ATAGCGAAAA	900
AATGGTGGCT	GACCTTGAAA	ATCCGTACAT	TTTGATTACA	GACAAGAAAA	TTTCCAATAT	960
CCAAGAAATC	TTGCCACTTT	TGGAAAGCAT	TCTCCAAAGC	AATCGTCCAC	TCTTGATTAT	1020
TGCGGATGAT	GTGGATGGCG	AGGCTCTTCC	AACTCTTGTT	TTGAACAAGA	TTCGTGGAAC	1080
CTTCAACGTA	GTAGCAGTCA	AGGCACCTGG	TTTTGGTGAC	CGTCGCAAAG	CCATGCTTGA	1140
AGATATCGCC	ATCTTAACAG	GCGGAACAGT	TATCACAGAA	GACCTTGGTC	TTGAGTTGAA	1200
AGATGCGACA	ATTGAAGCTC	TTGGTCAAGC	AGCGAGAGTG	ACCGTGGACA	AAGATAGCAC	1260
GGTTATTGTA	GAAGGTGCAG	GAAATCCTGA	AGCGATTTCT	CACCGTGTTG	CGGTTATCAA	1320
GTCTCAAATC	GAAACTACAA	CTTCTGAATT	TGACCGTGAA	AAATTGCAAG	AACGCTTGGC	1380
CAAATTGTCA	GGTGGTGTAG	CGGTTATTAA	GGTTGGAGCC	GCAACTGAAA	CTGAGTTGAA	1440
AGAAATGAAA	CTCCGCATTG	AAGATGCCCT	CAACGCTACT	CGTGCAGCTG	TTGAAGAAGG	1500
TATTGTTGCA	GGTGGTGGAA	CAGCTCTTGC	CAATGTGATT	CCAGCTGTTG	CTACCTTGGA	1560
ATTGACAGGA	GATGAAGCAA	CAGGACGTAA	TATTGTTCTC	CGTGCTTTGG	AAGAACCCGT	1620
TCGTCAAATT	GCTCACAATG	CAGGATTTGA	AGGATCTATC	GTTATCGATC	GTTTGAAAAA	1680
TGCTGAGCTT	GGTATAGGAT	TTAACGCAGC	AACTGGCGAG	TGGGTTAACA	TGATTGATCA	1740
AGGTATCATT	GATCCAGTTA	AAGTGAGTCG	TTCAGCCCTA	CAAAATGCAG	CATCTGTAGC	1800
CAGCTTGATT	TTGACAACAG	AAGCAGTCGT	AGCCAATAAA	CCAGAACCAG	TAGCCCCAGC	1860
TCCAGCAATG	GATCCAAGCA	TGATGGGCGG	GATGATGTAA	GCTTTCTATA	GAAAACAACT	1920
TATAAAAAAC	ACAAAAGGAG	GGAATGACTA	ACCCTTCTTT	TTATAGGCTC	TTTGTCAACT	1980
GTAGTGGGTT	GAAGTCAGCT	AAGCTCGAGA	AAGGACAAAT	TTCGTCCTTT	CTTTTTTTGAT	2040
GTTCAAAGCG	ATAAAAATCC	GTTTTTTTGAA	GTTTTCAAAG	TTTCGAAAAC	CAAAGGCATT	2100
GCGCTTGATA	AGTTTGATGA	GATTATTGGT	CGCTTCCGGT	TTGGCGTTAG	AATAGTGTAG	2160
TTGAAGGGCG	TTGATAATCT	TTTCTTTATC	TTTGAGGAAG	GTTTTAAAGA	CAGTCTGAAA	2220
AATAGGATGA	ACTTGCTTAA	GATTGTCCCTC	AATAAGTCCG	AAAAATTTCT	CCGGTTCCTT	2280
ATTCTGAAAG	TGAAACAGCA	AGAGTTGATA	GAGCTGATAG	TGATGTTTCA	AGTCTTGTGA	2340
ATAGCTCAAA	AGCTTGCTTA	AAATCTCTTT	ATTGGTTAAA	TGCATACGAA	AAGTAGGACG	2400
ATAAAATCGC	TTATCACTCA	GTTTACGGCT	ATCCTGTTGT	ATGAGCTTCC	AGTAGCGCTT	2460

630

GATAGCCTTG	TATTCATGGG	ATTTTCGATC	CAATTGGTTC	ATAATTTGAA	CACGCACACG	2520
ACTCATAGCA	CGGCTAAGAT	GTTGTACAAT	GTGAAAGCGA	TCCAACACGA	TTTTCAGCATT	2580
CGGGAGTGAA	ACAGTCTGGG	AGACTGTTTC	AGCCTGAGCC	TAGAAATTTG	AAAGCGAAGC	2640
TGTTTAGCCA	AGTCATAGTA	AGGACTAAAC	ATATCCATCG	TAATGATTTT	CACTTGACAA	2700
CGAACGGCTC	TATCGTAGCG	AAGAAAGTGA	TTTCGGATGA	CAGCTTGTGT	TCTGCCTTCA	2760
AGAACAGTGA	TAATATTAAG	ATTATCAAAA	TCTTGCGCAA	TGAAACTCAT	CTTCCCTTA	2820
GTGAAGGCAT	ACTCATCCCA	AGACATAATC	TTTGGAAGCC	GAGAAAAATC	ATGCTCAAAG	2880
TGAAAGTCAT	TGAGCTTGCG	AATGACAGTT	GAAGTTGAAA	TGGCCAGCTG	ATGGGCAATA	2940
TCAGTCATAG	AAATTTTTTC	AATTAAC TTT	TGAGCAATCT	TTTGGTTGAT	GATACGAGGG	3000
ATTTGGTGAT	TTTTCTTTAC	CAGGGGAGTC	TCAGCAACCA	TCATTTTTGA	ACAGTGATAG	3060
CACTTGAAAC	GACGCTTTCT	AAGGAGAATT	CTAGAAGGCA	TACCAGTCGT	TTCAAGATAA	3120
GGAATTTTAG	AAGGTTTTTG	AAAGTCATAT	TTCTTCAATT	GGTTTCCGCA	CTCAGGGCAA	3180
GATGGGGCGT	CGTAGTCCAG	TTTGGCGATG	ATTTCTTGT	GTGTATCCTT	ATTGATGATG	3240
TCTAAAATCT	GGATATTAGG	GTCTTTAATA	TCGAGCAGTT	TTGTGATAAA	ATGTAATTGT	3300
TCCATATGAA	TCTTTCTAAT	GAGTTGTTTT	GTCGCTTTTC	ATTATAGGTC	ATATGGGACT	3360
TTTTTTCTAC	AACAAAATAG	GCTCCATAAT	ATCTATAAGG	GATTTACCCA	CTACAAATAT	3420
TATAGAGCCG	AAAATTCACA	TCTAATATAT	GCAGACTACT	TTGAAATGAA	ATTAAAAAAA	3480
TTATTAAAGG	ATGACACAAA	AGTTTTTTGAA	AAATCTACAT	TCAAATTTGT	AGAAGGATAT	3540
AAAATATAACC	TGACAGAATC	TAAAGAATCT	GGAATTAAAC	AAATGGACAA	TGTCATAAAA	3600
TATTTTGAGT	TTATTGAATC	TAAAAGTATT	GCTTTATATT	TTCAAAAACG	ATTAAATGAG	3660
CTGATAGATT	AAATAGCATT	TTCTCTGTTG	AGATATTGTT	TTTAAAATAT	TGTACTAAAT	3720
GATTGATGCT	ATGTGGAAAT	ACAAAAAAT	GTTTTTGATA	CGAAGTTGAC	CTGTATTTTT	3780
TATACTAATC	ATTTTCGTAT	TTTTTGTATT	AAACGATATA	AGTTTGTTGT	AACTTACAA	3840
GGAATAAAGA	CATTAAAAAA	TAACAGTATA	TCTATTTGTT	TTATATATTT	TACGAATTCT	3900
GCATAAATCT	CTTCTAGTA	ATGTGTTGTA	ACTCTGCTAT	AATAGATTTA	TTCTTTTTTG	3960
TGTTTACACA	ATTTATTTTA	TAGTACCAAA	AAAGGTCAGG	ATTTTGTTCC	TGACCTTTGA	4020
CACTTTTACC	GATTCTTTAG	TTCTACATAG	CGCTTG TACC	AAATGTTTAC	ATAGGCTTCT	4080
GAGAAAGGAC	CACGTCCATT	GTTAATCCAA	TCAACAAGAA	TTTTGACATG	TTCTTTTAAA	4140
ATATAGTCCA	AGTCATCAGA	ATAATTCATT	TTGCGTTTGT	GACGCTCGTA	CTCTTCAACG	4200
TCCAAGAGAC	GTTTTTCCCC	ATCTGTAAAA	ATTTTAACAT	CCAAATCGTA	ATCAATATAC	4260

631

TTCAGTGCTT	CTTCATCCAG	ATAGTAGGGG	CTAGCCATAT	TGCAATAGTA	AGAAGTTCCA	4320
TTATCACGAA	TCATGGCAAT	GATATTAAAC	CAATATTTCT	TGTGAAAGTA	AACAATAGCC	4380
GGTTCTCGAG	TGACCCAACG	ACGACCATCA	CTTTCGGTAA	CAAGTGTATG	ATCGTTGACA	4440
CCAATAATGG	CGTTTTCTGT	TGTTTTTAGT	ACCATGGTGT	CCCGCCAAGT	TCGGTGGAGA	4500
CTCCCATCAT	GCTTATAACT	TTGAATTGTA	ATAAAGTCGC	CTTCTTTTGG	AAGCTTCATA	4560
ACTAACCAAC	TTTCTACAAT	TTATAAGTTT	ATCATTTACT	ATTGTACCAT	AAAATTACCC	4620
AAAATCTGTG	AATTTCACTT	GGAAATATTA	AAGATATTCT	CTAAGAGCGC	TTGCTATATC	4680
CGAAAAATCG	TAGCCCTTTC	GTGCTAAAAC	TTGAGTTAAA	CGCTGCTTCA	GTTCGTATCC	4740
TTCATACTTT	CGGGCATACT	TAGTATATTG	CTTATCAAGT	TCCTTGAAGA	TGAGTTCCTG	4800
AGTCGTTTCT	TCATCAACTT	GACTATCCAA	TTCGTCAAAG	GCAATTTTAT	CATCAAAATA	4860
AGAGAAGCCC	TTGTTAGTCA	AGTTCTGGAT	AATCTTATCT	TGCAGGGCAC	GAGCTGGAAG	4920
TTTTCCCTCA	TATTTTTTCA	ATAGTTTATT	GGCTACACGT	TGAGCAACTT	CCGAAAAATC	4980
AAAATCATTC	AAGATTCTTT	CTATAGTAGA	TTTTGAAATT	CCTTTTTGTG	CTAATTTCTG	5040
AGTCAGTACA	TAAGGTCCCT	TGTCTCCTGA	AAGTTGATTG	GCATTGATGA	TAGCATAAGC	5100
GTACTGGCTA	TCATTAATCC	ACTTCTCTTC	TTTAAGATTA	GCAATGACTT	GAGAAACGAT	5160
GTTTTCATTA	ATATCATATT	TTTTCAGATA	TTCTCTGACC	TCTTTTTTCAG	TACGTGCTTT	5220
AAAGGATAAG	TGGTAGAGGG	CCAGATTCTT	ACCATAAGAA	AATTGAGCAA	AGTCTTGAAT	5280
CTCTTTCAAT	TCCTCTTCGC	TTATCACCTT	ATCTCTCGAT	AACATAAAAC	GAACAATTGT	5340
GTCTTCGGTG	ATATAGCATT	TGTCG				5365

(2) INFORMATION FOR SEQ ID NO: 78:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3636 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 78:

TTTCCAGAAA	GAAGTTGAGT	AAAGTCTTTA	TCAAAGAGAA	TGACTTCCGT	ATTGGAAGT	60
ACATTAGGTT	TTATTTCTAC	TTTACTAGCG	TCCGCCCTAG	CATTTTCTAA	ATCTTTAATC	120
TCTTCTGTTG	CCCTATTTAT	AGCCAGCTGA	ATAACTGCTT	GAGGATTTTC	ACTCAGTCCA	180
TGAAGCTTAT	CGTCCACCGA	AGTATAAAGA	CTCGAATGCA	TGACTTGTA	AATAATCAGA	240

632

GTCATTGTAG	AAAAAATCAG	GGTGAAGACA	CCGAAGTTGC	GGATAAAATA	ACTAAAGTCA	300
TCCGCATACC	ATGTTTTTTT	AAGTTTACTG	AACATCTTTT	AAAAGATACC	CAACACTACG	360
CAAAGTTTGC	AAATTCTCTG	CAAAAGTGGT	TCCCTTTAAT	TTCTTACGGA	CTTTTGAAAC	420
ATAGACTTCG	ACAACCGAAA	TCGTTGTATC	ACTATCAAAT	CCCCATAGAC	GGTCAAAAAT	480
CTGCGTCTTA	GGCAAAATCA	CATTTTGATT	TTGAAGGAAA	TAAACTAGTA	AATCGAACTC	540
TTTCCCCAGC	AATTCGACAG	GAGTATCTTC	AACTTTAACG	GTATTGGTTG	ATAAATTAAC	600
CACGATATTC	CCATAAGTCA	AGGTGTTTTT	ATTAAACTTC	CCTGAACGTT	TGAGAAGGGC	660
CTGAATCCGC	ATTTTAAGTT	CTTCTAGGTA	GAAAGGTTTG	GTCAGATAAT	CATCCGCTCC	720
CAGTTCAAAT	CCATGTCCCT	TGTCATCCAA	ACTTTCCTTG	GCAGTCATAA	TCAGAACTGG	780
TGTCGTAATT	CCCTTTTCAC	GCAATTCTTT	TAAGACTTGG	AAACCATTTT	TTTCTGGCAA	840
CATCAAATCC	AGCAAAATCA	AGTCATAGAC	ACCACTCTCA	GCTTCGTAGA	GACCTTCTTC	900
TCCATCAAAT	ACCTGCATAA	CATCCGCAAA	ATCGTCTAAA	AAGTCAAATA	CTGAATTGTA	960
CAGACCTAGG	TCATCCTCAA	CCAATAAGAT	TTTTATCATG	AGAAACTCCT	CCTTATTAAA	1020
ACTATTATAC	CAAATTTGCC	TTAAAAAATA	CTCAACTCTC	TGCATTTTAC	ATGAGATAGC	1080
TGAGTTTTCT	TTTTATTTTA	GGCTTATTTA	TGCATTTCCG	TATTGAAGAA	CAACTGCTTC	1140
GACTGCAGCT	TTTTACGGC	TAATCAAGTC	AACACGCGCT	GCAATTTCCT	TGATTCCCAT	1200
ACCGATGTTA	CGGCTAAGAG	CAAGGTCAGA	AAGTTGCGGT	TCAAAGAACT	CCTTGTATTC	1260
CGCCAAGCGT	TGCTGAGTCT	TAAATACATG	AGCAGGAAGG	ATAACAAAGC	TATCAAAGCT	1320
CATATCTCCT	CCAAGGGCTG	CCTTAATCCA	AGCCCAGTTT	TCACGCGCCC	AAGACCAAGC	1380
TGTTTTCTGA	GTTGCTTGAT	GAGCTAGGAA	TTGGTAATAC	CAAGCAGACA	AGTCCTGTGG	1440
TTTGACCACA	AATTTGTCCT	TCCAAGAAGT	AATCAGGTTT	TGGATATTAT	CCGCATCTGT	1500
ACTGTATGCA	AGAGCTGCTG	CCAAGTGGCG	TTTAAAGACA	GCATCTGTTG	CGTGAGTATA	1560
AGTATCAAGA	TAAAGTGCTA	ACAAGTCTTT	AGTCTCATGA	TGTTTCATCT	CATTAATCAG	1620
AAC TTGTGAG	CGAATAGCTG	CTGGGAGTCC	TGCAAGATTC	TCCTTGTTGT	TTGCGAAGAT	1680
TTGGCTAGCG	ACTTGACTAG	CTTCTGCATC	ATTTGAGCGA	ATCATCATCG	AAACAGCCAG	1740
CTGACGAACC	AATTCATCCT	CATCTGATTC	TCCGTCTTTA	GCTTCAAAAC	CAAGACGGTC	1800
ATAGTTATGA	CGAGCCAATT	TAGCAACCAG	TCCTTTGAAG	GCTGTTTCAG	CATCCGTTCC	1860
TTCATCAATA	AAGCGCTCAA	GGGCTGAAAT	CACTTGAGAA	ACAGCTGAAA	CCACCAGATA	1920
AGACTCTTCC	TTAGCAAGTT	TATCAAGAAC	TGGAAGCAAG	TCTGCATAAG	AAATGTGCCC	1980
TGCCTCAGCC	AACAAACGAC	GTTCTTGAAC	AATTTGCAGT	TTGCTTGTGT	TATCAAGTGT	2040

633

CTCTAGCTCA	GCAAGAACAG	CTGCTAACAA	GTCTCCTTGA	TAGTCGGTAA	TATAGTGGGC	2100
AGTATTTTCA	GTGTTGAGAC	GAAGAGCTCC	TTCATTTTCA	GCAAGAAGAG	CTGCGTAGCC	2160
AGGGATTTTCG	ATACTTTCAG	TTTCGAGTGT	ATCAGGCAAG	CCTTTCCAGT	TGCTATTGAG	2220
GGGCACCACC	CAGAGACGGT	TCTTGTCTTC	GTTCTCACCG	ATGAAGAATT	GTTTTTGTGA	2280
AATCTTCAAG	ACATCATTTT	CAACTTTAAC	AGTAAGAACT	GGGTAACCAG	GCTGTTCCAA	2340
CCAAGAATCC	ATGAAGGCTG	CGACATCACG	TCCTGACGCT	TGACCAAGGG	CATCCCAAAG	2400
GTCACTACCA	ATGGTGTTGC	TGTATTGGTG	TTTTTCAAAG	TAGGCGTGCA	AACCTTTAGC	2460
AAAATCAGCA	TCTCCTAGCC	AACGGCGAAG	CATGTGCATG	AGACGGCTTC	CTTTGGCATA	2520
GACGATAGCG	CCGTCAAAGA	GTGTATTGAT	TTCATCTGGA	TGTTTAACTT	CGACGTGGAC	2580
AGACTGAACG	CCATCAGTAG	CGTCACGTTC	AAGAGCAAGA	GGTACTCCAC	CTGTTTGGAA	2640
ATCTTCAAAG	ATATTCCAGC	TTGGTTCGAT	GGTATCCACA	CAGACGTATT	CCATCATATT	2700
AGCGAAACTT	TCATTGAGCC	AAAGGTCATC	CCACCATTTT	ATAGTCACGA	GGTTCCCAAA	2760
CCATTGGTGA	GCCAATTCAT	GGGCCACAAC	AAGGGCAACT	TGTTGACGGC	TAGCAAATGT	2820
AGAGTTCTCA	TCGACAACCA	AGTAAACTTC	ACGGTAGGTC	ACAAGACCCC	AGTTTTCCAT	2880
AGCACCAGCT	GAGAAGTCAG	GAAGGGCGAT	GTGGAGAGAT	TGAGGAATTG	GGTACTTAAC	2940
TCCATAGTAA	TCTTCGTAAA	ACTCGATAGA	GCGAACAGCG	ATATCCAGTG	AGAAATCAAG	3000
ATTTGAAAGT	GGATGTGCTT	TGGTTGAGTA	GACACCTACC	AGGGTACCAT	TTTTAGTTTT	3060
AGCGGTCACC	CCTTGCAAAT	CACCAGCAAC	AAAGGCCAAC	AAGTAAGAAG	ACATGCGAGG	3120
TGTTGTCTCA	AACTTCCAGA	TACCTGTTTC	CTTACGGTTT	TCAACATCGA	TTTCTGGCAT	3180
GTTTGACAAG	GCCAATTCAC	CTTCTGCTTG	GTCAAAGCGA	AGAGAGAGGT	CAAAAGTTGC	3240
TTTGGCTTCA	GGCTCATCCA	CACATGGGAA	AGcTTCGCGC	GCAAAATGGC	TCTCGAACTG	3300
AGTAGACAAG	ACCTCCTTCT	TGACTCCATC	AACTGTATAA	TAAGAAGGGT	AAATCCCTGT	3360
CATGTTGTCT	GTAATTTTAC	CAGAAAAGGC	AAGAACCAAT	TCAACTTGAC	CAGCCTCAGC	3420
CAATTCGATA	TGAAGGGCTT	CATTGTCATG	GTCAACTGTA	AATGGACGAG	CTTGACCTGC	3480
AACTTCTACA	GAGGTGATTT	CCAAATCTTT	TTGGTGAGAG	GAGATGCGGT	CACTCTGTGC	3540
TTGACCAGTG	ATGGTCACTT	TCCCAGAAAA	AGTCTTGGTC	TCACGACTCA	AATCTAAAAA	3600
TAAATCATAA	TGTTCAAGAA	CAAATTGCTT	AATGGG			3636

(2) INFORMATION FOR SEQ ID NO: 79:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5066 base pairs

634

(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 79:

ATAGCGTGTA ATAATCGATT TTAGAGGTAC CATAAGCCAC CTCCTACAAA TAGAAACCGA	60
TATAAATCAA TGCCTTCCAC CCTTAGACTT CCCTAGTTCC TGTCTCAAGC GAAACATTTTC	120
TTTGAAACAG GAATAAGTTA ACCAATTCAT ACCAATAGCT AGCAGAATAA AAAGAAACCA	180
AATGCCCCAT AACTTGATAT CTGTCACATT TCTCAAGACG GTATTGAAAA ACAGAACTGA	240
AACAACTGTC CAAGCAAGGC TAAAAAGAGA ATAGAAGGGG ATGTAAAACC AGTAAAAATA	300
ATAAAAAATT GGAAAAAACT TACTATTTCT GTTGGCCTTT TCAATCCAGT TATCAAAATA	360
AAAGTACGGT GCTAAAAGTA AGAATTTAAA CAAATGTTCC ATCACCAGCA TCCCCCCTTC	420
TTTTGATAGC GTTTTCTATT ATTTTATTAT ATCAAAAAAA TCCGGAAGTG TCATTCCAGA	480
TTCTACTTTT TTATTTGCGT TTTCTTGCGA TGAGATGAAT CGGTGTTCCC TCAAAAACAA	540
AGGCCTTGCG GATTTGATTT TCCAAGAAAC GCAGGTAAGA AAAGTGCATG AGTTCTTCTT	600
CATTGACAAA GATGACAAAG GTTGGTGGTT TGGTTGCCAC TTGGGTCGCA TAGAAAATCT	660
TGAGACGTTT TCCTTTGTCT GTCGGTGTTG GGTGATGGC AATGGCATCC ATGATGACAT	720
CGTTCAAGAC AGCTGATGGA ATACGTGTAT TTTGACTTTC GCTGATTTGC TTAATCATCT	780
CAGGAAGTTT GTGGAGACGT TGCTTGGTTA AAGCTGATAC AAAGATAATC GGTGCGTAAG	840
GCAGGTATTG GAACTGCTCA CGGATATCTT CTTCCCAGTT TTTCATAGTG TGGTTATCTT	900
TTTCAAGCGT ATCCCAGTTG TTGACCACGA TAATCATCCC TTTACCAGCT TCATGGGCAA	960
ATCCTGCGAT ACGCTTGTCG TACTCACGAA TGCCTTCTTC CGCATTGATG ACCATCAAGA	1020
CCACATCTGA ACGGTCAATA GCACGCATGG CACGCATAAC AGAGTATTTT TCAGTATTTT	1080
CATAAACCTT ACCAGACTTA CGCATACCAG CCGTATCAAT CATGGTAAAC TCTTGACCAT	1140
CTGTATCTGT AAAGTGGGTA TCAATGGCAT CACGAGTTGT TCCAGCAACA GGACTAGCAA	1200
TAACACGGTC TTCTCCCAAG ATAGCATTGA TCAAGCTTGA TTTTCCAACG TTAGGACGAC	1260
CAATCAAGCT AAACCTAATG ACATCTGGAT TTTCTTCCTC ATATTCATTT GGAAGATTTT	1320
CTACGATCGC ATCTAGCACA TCCCCTGTAC CGATTCCATG GACAGATGAG ATAGGCAATG	1380
G TTCACCCAA ACCGAGAGCA TAGAAATCAT ATATATCATT TCTCATCTCA GGGTTGTCCA	1440
CCTTGTTGAC TGCGAGGATA ACTGGTTTGT GGGTCTTATA AAGCTTACGA GCTACGTATT	1500
CGTCTGCATC AGTAATTCCT TCCTTACCAG ACACGACAAA AACGATAACA TCTGCTTCTT	1560

635

CCATGGCAAT TTCTGCCTGG TGCTTGATTT GTTCCATGAA AGGAGCATCG ACATCATCAA	1620
TTCCCTCCTGT ATCAATCATG CTAAAAGAAC GATTGAGCCA CTCACCCGTT GCATAAATAC	1680
GGTCACGTGT CACTCCTTCG ACATCTTCTA CAATGGAGAT TCGCTCACCA GCGATCCGAT	1740
TAAATAGGGT TGATTTCCCA ACATTGGGAC GTCCTACAAT GGCAATAGTT GGTAGGGCCA	1800
TAATTTCTCA CTTTCTACAA TAATTTCTTC TGTTCAGAT TTTTCTTAGT TGAGCTTGGT	1860
TCAGCTTGAC CAAACTGTTT TGCTAGGCGC TGACTCCAGC TTGTGGTCGC ACGCGCCCCA	1920
GCATAGTCAG CCTGAACACG GTCATAAGCT TGGATTGCCT CAGTTGACTG TTCTTGGTAT	1980
TCTTCCTCAA AGACAACATT CTCTAGTGGC AGTCTCGGTT TCATATCATG ATGTTGATTT	2040
GGCACACCCA GTGCCATCCC AAAGACAGAA TAGGTGTAGT CAGGTAGGTT AAAGAGCTCT	2100
GCCACTTCTT CAGACTTGTA TCGAACCAAA CCGATAATCA CACCACCATA GCCCAAGCTT	2160
TCAGCTGCCA ACAAGGCGTT TTGTCCAGCA AGAGCTGCAT CGACCGAACT AATCAAGAGA	2220
CCTTCCACAC CTTGGGGTTG GAAGGTGTCG GTATGAAGTC GGGCTCCCTT TTCTGCTCGG	2280
TTCAAATCTC CGACAAAGAG AAGGAAAACA GCAGACTGGC GAATGGCTTC TTGAGGTACC	2340
AATTCATACA AGGCATCTTT CTCTCTTGA CTTCGTACCA CAATCACAGA GTAGGATTGG	2400
AAATTCTTCC AAGATGATGC CATCTGGGCT GCTGTCAAAA TCTCATTTAA GTCTACTTGG	2460
GGAATTTCTT GCTCTTTAAA CCTGCGCACT GAAGTATGAG CCTTCATCAA TTTAATGGTT	2520
TCTGTCATCG ACGGTTTACT CCTTCTAAAC GAGTCTCCTC AGCCAAATAA CGGATGCGTT	2580
CCATGACCCG TCTGGCTTCC CAGGTTTCGT CATTTCCATG TTTCACTTTC GCAAAATGCT	2640
TCTCCAAATC TTCAAAGTTG AAGTTGGATG TGAAAAAGGT CGGTAAATTT TCCTGCATCC	2700
GATATTGGAG AATGACCTGC AGGATTTTCGT CACGCACCCA AACGGTTGAT TGCTCGGCGC	2760
CAATATCATC TAAAATCAGG ACCTCAGACA GCTTAATCTC ATCCACCAAG GTCTTAACAT	2820
TGCCATCACT GATAGCATTT TTGACATCAA TGACAAAGCT AGGATAGTGG AGGAGAGTTG	2880
ATGAAACACC ACGTTTTTCT GATAAATCAT GAGCTAAGGC CGCCACCATG AAACTTTTAC	2940
CCACACCAAA GTCTCCATAT AAGTAAAGAC CTTTTCGAAT AGCTGGATAT TGCTCCACGA	3000
AGGCTAGTAG CTTTTCAAAA ACTGGTAAGC GCCCCAAATC ATCCAAGTCA ACTTGAGCCA	3060
AACTAGCTTT CTTGAGACTG GCTGGTAGAT TGATTAAGTT GAGACGGTTC TTAATAGCCG	3120
CTTCTTTTTC AGCCGCGATT AGCTCAGGAG TTTCTTCATA TGAAACATCT GCATAACCAT	3180
GATTCTTAAC CAAAATCGGC TTGTAGCCTT TGGCAATATA ATCCGTATCC CCACGGAGAA	3240
ACTTGTCACG CTCGGTGATG TACTGATTAA ACTTGGAGAT ACTGCGATTT AATTCCTTTG	3300

636

GAGTTAAGGA TTCTTGCTGG ATAAAGGCCG CAACATCAGG GTCCTTCATG ATTTTCTGGA	3360
CCAAATCTTG ATAATAAAAA CGGCTGGGTT GACGTTTGAG TACGTCTCCG AACTTTTCCA	3420
TCTAATCTCC TCCTTTTCT AATCGAGCTA ATAGTTCTTG CTTCTTACGT TCTAGTTCCA	3480
GACGAGTTTC CTCGCTGGTT TCATTCTTAT ATTGAGGATT ACTCCATTTA GGAACATTGG	3540
TTTTTTCTGG GGCAGTCTGA TTCTGTTTTT GTGTTTTTGC TTTCTGCCCT CGATCACGAA	3600
TTCGTAAAAC GGCCTCTTCT GCCGAATGAA TCTTTTGATA GGCATAGTCA TTGGCTACCT	3660
TCATGGCATA TTTCTCATTG ATATTTGCCG AATCCACCTT ATTAAAGGTC AATAAGAGAA	3720
TAATATTGAT GACTTCGTCC AGTAAGCCCA AGCCAGCCAT CTGTTGCAAG AGTTCTCTTT	3780
CTGTTTGGGT AATGGTTCCC TTGCGTGTTT GCTTGATTTC TGCTAAGAAC TGCAGGGCAG	3840
TTTTACTTTT AGCTTCTTTG ATAATGGTCG CTTCTTAAG ACTAAAGTCA GAGGAACTG	3900
GTTTTTGAGC AATTTTTTCA CGCATGCGTT TGGTTGAAAT AACCTGGGAA ACAGCTGTTG	3960
ACTTGGCCAA TTGATAGGTT TCAAACCAAG TCCATTTCTT CTCCTCGGCA ATAGCAAAGA	4020
GGTTTAAGAC ATCGGACTGC TCATCCGCAA AACGAAGTCC ATCTCGAGCC ATCAGCTGGC	4080
GAAAATGTTT CAAGTCAAAA TCATTGGCCA CTTTCTTCTT GAGACCAAGG TCTTCTTGAC	4140
TGCCTAGTTC TGCCAATTCT GGAAAGACTT GATTGAGTGA GACAGGTATT TCTTCACCAT	4200
CAGCACTTTC AACTTTCAAA TCCTCCACAG CTACATCGCC AATCTTTTTC TCTAAGAGTC	4260
TGCGATAAAC AGGATGCCCC AAGAAGTCTT GACTAGATAG AGGAGCATGG AGGGCTAGCT	4320
GATAAACATC ACCCTTTTGA TAGAGGGTCA AGAGATTAAA AGCAGATAAG ATTTTCAATG	4380
ATTTTATCAG TCTATCCATC CCAAAGTTGA GATGGTTGAG AATGCTTGAA AAAAGATATT	4440
CCTTTCTACC ATTATCCCAA AAAGTATTG TATAAAGATA AAGGCTCAGT GCCTCCTGAC	4500
CGATAATCGG GAGGTAGCAC TGTACCAGAG ATGAGGTATC TTGCGACACC CGATTATTCT	4560
TTAGATAAGA AAAACGGTCA ATTGGCTTCA TTTATCTTTC CTTTTTCTTT TTAGAGGACT	4620
GGGTGATTTG TTGGAGCAAG CTCTCTAACT CACTGACATC CTTAAACTA CGATAGACAC	4680
TAGCAAAACG TACATAGGTA ATCTCGTCCA ATTCAGCCAA CTCCTCCATG ACGAGTGAAC	4740
CAATGTCCTC ACTTTGAATT TCATTTTCAT TTCGACCACG GAGTTTCTGT TCGATACGAT	4800
TGACTACCAT GTTGATTTCA TCACTTGACA CAGGACGTTT CTGGGCTGAG CGGATAATCC	4860
CATTAAAGAT TTTATCTCTG GAGAATTGTT CCCGTGTGCC ATCTTTTTTA ACAACCACTA	4920
AGGTTCTTTC TTCTACTCGT TCGTAGGTTG TAAAACGGTG TTGGCATTCC TCGCACTCAC	4980
GTCTTCTACG AATGGTGTTT CCTTCTTCTG CTTGGCGACT ATCGATAACA CTTGACTTGG	5040
TAGCCCCACA TTTTGGACAG GGTACC	5066

637

(2) INFORMATION FOR SEQ ID NO: 80:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 9607 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 80:

CACTTGAAGT ATTTGAAACA GCTATGGAAA ACATCATGCC TGTACTTGAA GTACGTGCAC	60
GTCGTGTTGG TGGTTCTAAC TACCAAGTCC CAGTTGAAGT TCGTCCAGAA CGTCGTACAA	120
CACTTGGACT TCGTTGGTTG GTAACAATCG CTCGTCTTCG TGGTGAACAC ACAATGCAAG	180
ACCGTCTTGC AAAAGAAATC TTGGATGCTG CTAACAACAC TGGTGCAGCA GTTAAGAAAC	240
GTGAAGATAC TCACCGTATG GCTGAAGCTA ACCCTGCATT CGCACACTTC CGTTGGTAAG	300
ATAGGATGCG AAAGCGTTAA GAAAGTCCCA GAGAAAATAG GGAATCGAAG CAGGTTGCGG	360
TTGCAACCAA TGAGATTCAT CTTTTTCTCC AGACTTTTAG CTTGAGCTCA ACTAAATCAT	420
GATGCTAGGA ACGGTAAGGA TGCAAGGTAA AAATAGGAAA CTGACGCAGT ATTCGACGAA	480
TACAAGGAGT TTTATCTTTT TCACGCAGCA TCCC GTTCCA GCTCACATCG GCTAACTAAC	540
TTTAGCCCGG GTTCAAATTA GCTAAATCGA TTAGTATTAG CTATAACTCA GCTTACCATC	600
TCGTAAGTTG AAACCAACAA TAGCATGAAA ACATTGAGAA CGGGTAGGTC CTGCCTATCC	660
GTTTTTATTA AAATCGTGTT ATAATAGAAT AGAAATCAAA AATAAATAGG AGAAACAAAC	720
CTCATGGCAC GCGAATTTTC ACTTGAAAAA ACTCGTAATA TCGGTATCAT GGCTCACGTC	780
GATGCCCGTA AAACAACAAC TACTGAGCGT ATTCTTTACT AACTGGTAA AATCCACAAA	840
ATCGGTGAAA CTCACGAAGG TGCGTCACAA ATGGACTGGA TGGAGCAAGA GCAAGAACGT	900
GGTATCACGA TCACATCTGC TGCGACGACA GCTCAATGGA ACAACCACCG CGTAAACATC	960
ATCGACACAC CAGGACACGT GGACTTCACA ATCGAAGTAC AACGTTCTCT TCGTGTATTG	1020
GATGGTGCGG TTACCGTTCT TGA CTCACAA TCAGGTGTTG AGCCTCAAAC TGAAACAGTT	1080
TGGCGTCAAG CAACTGAGTA CGGAGTTCCA CGTATCGTAT TTGCCAACAA AATGGACAAA	1140
ATCGGTGCTG ACTTCCTTTA CTCTGTAAGC AACTTCACG ATCGTCTTCA AGCAAATGCA	1200
CACCCAATCC AATTGCCAAT CGGTTCTGAA GATGACTTCC GTGGTATCAT TGACTTGATC	1260
AAGATGAAAG CTGAAATCTA TACTAACGAC CTTGGTACGG ATATCCTTGA AGAAGACATC	1320
CCAGCTGAAT ACCTTGACCA AGCTCAAGAA TACCGTGAAA AATTGATTGA AGCAGTTGCT	1380

638						
GAAACTGACG	AAGAATTGAT	GATGAAATAC	CTCGAAGGTG	AAGAAATCAC	TAACGAAGAA	1440
TTGAAAGCTG	GTATCCGTAA	AGCGACTATC	AACGTTGAAT	TCTTCCCAGT	ATTGTGTGGT	1500
TCAGCCTTCA	AAAACAAAGG	TGTTCAATTG	ATGCTTGATG	CGGTTATCGA	CTACCTTCCA	1560
AGCCCACTTG	ACATCCCAGC	AATCAAAGGT	ATTAACCCAG	ATACAGACGC	TGAAGAAATT	1620
CGTCCAGCAT	CTGACGAAGA	GCCATTTGCA	GCTCTTGCCT	TCAAGATCAT	GACTGACCCA	1680
TTCGTAGGTC	GTTTGACATT	CTTCCGTGTT	TACTCAGGTG	TTCTTCAATC	AGGTTTCATC	1740
GTATTGAATA	CTTCTAAAGG	TAAACGTGAA	CGTATCGGAC	GTATCCTTCA	AATGCACGCT	1800
AACAGCCGTC	AAGAAATCGA	CACTGTTTAC	TCAGGTGATA	TCGCTGCTGC	CGTTGGTTTG	1860
AAAGATACTA	CAACTGGTGA	CTCATTGACA	GATGAAAAAG	CTAAAATCAT	CCTTGAGTCA	1920
ATCAACGTTT	CAGAACCAGT	TATCCAATTG	ATGGTTGAGC	CAAAATCTAA	AGCTGACCAA	1980
GACAAGATGG	GTATCGCCCT	TCAAAAATTG	GCTGAAGAAG	ATCCAACATT	CCGCGTTGAA	2040
ACAAACGTTG	AAACTGGTGA	AACAGTTATC	TCAGGTATGG	GTGAACTTCA	CCTTGACGTC	2100
CTTGTTGATC	GTATGCGTCG	TGAGTTCAAA	GTTGAAGCGA	ACGTAGGTGC	TCCTCAAGTA	2160
TCTTACCGTG	AAACATTCCG	CGCTTCTACT	CAAGCACGTG	GATTCTTCAA	ACGTCAGTCT	2220
GGTGGTAAAG	GTCAATTCCG	TGATGTATGG	ATTGAATTTA	CTCCAAACGA	AGAAGGTAAA	2280
GGATTCTGAAT	TCGAAAACGC	AATCGTCGGT	GGTGTGGTTC	CTCGTGAATT	TATCCCAGCG	2340
GTTGAAAAAG	GTTTGGTAGA	ATCTATGGCT	AACGGTGTTT	TTGCAGGTTA	CCCAATGGTT	2400
GACGTTAAAG	CTAAGCTTTA	TGATGGTTCA	TATCACGATG	TCGACTCATC	TGAAACTGCC	2460
TTCAAGATTG	CGGCTTCACT	TTCCCTTAAA	GAAGCTGCTA	AATCAGCACA	ACCAGCTATC	2520
CTTGAACCAA	TGATGCTTGT	AACAATCACT	GTTCCAGAAG	AAAACCTTGG	TGATGTTATG	2580
GGTCACGTAA	CTGCTCGTCG	TGGACGTGTA	GATGGTATGG	AAGCACACGG	TAACAGCCAA	2640
ATCGTTCGTG	CTTACGTTCC	ACTTGCTGAA	ATGTTCCGTT	ACGCAACAGT	TCTTCGTTCT	2700
GCATCTCAAG	GACGTGGTAC	ATTCATGATG	GTATTTGACC	ACTACGAAGA	TGTACCTAAG	2760
TCAGTACAAG	AAGAAATTAT	TAAGAAAAAT	AAAGGTGAAG	ACTAATCCGT	CCTCACTCTA	2820
GAAGGAAGTC	ACTTAGTGGC	TTCCTTTTGT	CTTTAGAAAA	TACCTCTAAA	TATGGTAAAA	2880
TAGTAGAAGA	ATAATGTGAG	GAAAATGAAT	GTCAAATAGT	TTTGAAATTT	TGATGAATCA	2940
ATTGGGGATG	CCTGCTGAAA	TGAGACAGGC	TCCTGCTTTA	GCACAGGCCA	ATATTGAGCG	3000
AGTTGTGGTT	CATAAAATTA	GTAAGGTATG	GGAGTTTCAT	TTCGTATTTT	CTAATATTTT	3060
ACCGATTGAA	ATCTTTT TAG	AATTAAAGAA	AGGTTTGAGC	GAAGAATTTT	CTAAGACAGG	3120
CAATAAAGCT	GTTTTTGAAA	TTAAGGCTCG	GTCTCAAGAA	TTTTCAAATC	AGCTCTTGCA	3180

639

GTCCTACTAT	AGGGAGGCTT	TCTCTGAAGG	TCCATGTGCT	AGTCAAGGTT	TTAAGTCCCT	3240
TTATCAAAAT	TTGCAAGTTC	GTGCTGAGGG	TAATCAGCTA	TTTATTGAAG	GATCTGAAGC	3300
GATTGATAAG	GAACATTTTA	AGAAGAATCA	TCTTCCTAAT	TTAGCCAAAC	AACTTGAAAA	3360
GTTTGGTTTT	CCAACTTTTA	ACTGTCAAGT	CGAGAAGAAT	GATGTCCTGA	CCCAAGAGCA	3420
GGAAGAGGCC	TTTCATGCTG	AAAATGAGCA	GATTGTTCAA	GCTGCCAATG	AGGAAGCGCT	3480
CCGTGCTATG	GAACAACTGG	AGCAGATGGC	ACCTCCTCCA	GCGGAAGAGA	AACCAGCCTT	3540
TGATTTTCAA	GCGAAAAAAG	CTGCAGCTAA	ACCCAAGCTG	GATAAGGCGG	AGATTACTCC	3600
TATGATCGAA	GTGACGACAG	AGGAAAATCG	TCTGGTATTT	GAAGGGGTTG	TTTTTGATGT	3660
GGAGCAAAAA	GTGACTAGAA	CAGGTCGTGT	TTTAATCAAC	TTTAAAATGA	CGGACTATAC	3720
TTCAAGTTTT	TCTATGCAAA	AGTGGGTAA	AAACGAGGAA	GAGGCCCAGA	AGTTTGACCT	3780
CATCAAGAAG	AATTCTTGGC	TCCGAGTTCG	AGGGAATGTG	GAGATGAATA	ACTTCACACG	3840
CGATTTGACT	ATGAACGTAC	AGGATCTGCA	GGAAGTTGTT	CACTATGAGC	GGAAGGATTT	3900
GATGCCAGAA	GGTGAGCGTC	GGGTTGAGTT	TCATGCTCAT	ACTAACATGT	CGACTATGGA	3960
TGCTTTGCCA	GAGGTCTGAAG	AGATTGTTGC	AACAGCTGCT	AAGTGGGGAC	ACAAGGCGGT	4020
TGCTATCACG	GACCATGGGA	ATGTCCAGTC	CTTTCCACAT	GGCTATAAGG	CGGCTAAGAA	4080
AGCGGGAATC	CAGCTGATCT	ATGGGATGGA	AGCCAATATC	GTGGAGGACC	GTGTCCCTAT	4140
CGTCTATAAC	GAAGTGGAGA	TGGACTTGTC	AGAAGCAACC	TACGTGGTCT	TTGACGTGGA	4200
AACGACGGGA	CTTTCAGCTA	TCTATAATGA	CTTGATTCAG	GTTGCGGCTT	CTAAGATGTA	4260
CAAGGGGAAT	GTTATTGCTG	AATTTGATGA	ATTTATCAAT	CCTGGGCATC	CCTTGTCAGC	4320
CTTTACTACA	GAGTTAACTG	GAATTACAGA	TGATCATGTC	AAAAATGCCA	AACCACTAGA	4380
ACAAGTTTTG	CAAGAATTCC	AAGAATTTTG	CAAGGATACG	GTCCTAGTTG	CCCACAATGC	4440
TACCTTTGAC	GTTGGCTTTA	TGAATGCTAA	TTATGAGCGG	CATGATCTTC	CAAAGATTAG	4500
TCAGCCAGTT	ATTGATACGC	TGGAGTTTGC	TAGAAACCTC	TATCCTGAGT	ATAAACGCCA	4560
TGGTTTGGGG	CCTTTGACCA	AGCGTTTTGG	TGTGGCCTTG	GAACATCACC	ACATGGCCAA	4620
CTACGATGCG	GAAGCGACTG	GTCGTCTGCT	TTTCATCTTT	ATCAAAGAGG	TAGCAGAAAA	4680
ACATGGTGTG	ACCGATTTAG	CTAGACTCAA	CATTGATCTA	ATCAGTCCAG	ATTCTTACAA	4740
AAAAGCTCGG	ATCAAGCATG	CGACCATCTA	TGTCAAGAAT	CAGGTAGGTC	TAAAAAATAT	4800
CTTTAAGCTG	GTTTCCTTGT	CTAATACCAA	GTATTTTGAA	GGAGTGCCAC	GGATTCCGAG	4860
AACGGTTCTA	GATGCCCATC	GAGAGGGCTT	GATTTTAGGT	TCAGCCTGTT	CAGAGGGTGA	4920

640

AGTTTTTGAC	GTGGTCGTTT	CTCAAGGTGT	GGATGCGGCG	GTTGAGGTGG	CCAAGTATTA	4980
TGATTTTATC	GAGGTCATGC	CACCGGCTAT	CTATGCACCC	TTGATTGCCA	AAGAGCAGGT	5040
CAAGGATATG	GAGGAACTCC	AGACCATTAT	CAAGAGTTTG	ATAGAGGTTG	GAGACCGCCT	5100
TGGCAAGCCT	GTTCTGGCTA	CGGGAAATGT	TCACTATATC	GAACCGGAAG	AAGAGATTTA	5160
TCGTGAAATT	ATCGTCCGTA	GTTTGGGACA	GGGTGCGATG	ATTAATCGAA	CTATCGGTCA	5220
TGGTGAACAT	GCCCAACCAG	CACCACTTCC	AAAGGCTCAT	TTTCGAACGA	CTAATGAGAT	5280
GTTGGATGAA	TTTGCCTTTT	TGGGAGAGGA	ACTGGCTCGT	AAACTGGTTA	TTGAAAACAC	5340
CAATGCCTTG	GCAGAAATAT	TTGAATCCGT	TGAAGTCGTT	AAGGGTGACT	TGTATACGCC	5400
TTTCATCGAC	AAGGCTGAAG	AAACAGTTGC	TGAGTTGACC	TATAAGAAAG	CTTTTGAGAT	5460
TTATGGAAAT	CCGCTGCCAG	ATATTGTTGA	TTTGCGGATT	GAAAAAGAAT	TAACATCCAT	5520
ACTGGGGAAT	GGATTTGCTG	TGATTTATCT	GGCATCGCAG	ATGCTGGTGC	AACGTTCTAA	5580
TGAACGGGGT	TATTTGGTTG	GTTCTCGTGG	GTCTGTCGGA	TCTAGTTTCG	TTGCGACCAT	5640
GATTGGGATT	ACGGAGGTCA	ATCCTCTCTC	TCCTCACTAT	GTCTGTGGTC	AGTGTCAGTA	5700
CAGTGAGTTT	ATCACAGATG	GTTTCGTACGG	TTCAGGATTT	GATATGCCCC	ATAAGGACTG	5760
TCCAAACTGT	GGTCACAAAC	TCAGTAAAAA	CGGACAGGAT	ATTCCGTTTG	AGACCTTCCT	5820
TGGTTTTGAT	GGGGATAAGG	TTCTTGATAT	TGACTTGAAC	TTCTCGGGAG	AAGATCAGCC	5880
TAGCGCCAC	TTGGATGTGC	GTGATATCTT	TGGTGAAGAA	TATGCCTTCC	GTGCGGGAAC	5940
GGTTGGTACG	GTAGCTGCCA	AGACTGCCTA	TGGATTTGTC	AAAGGTTACG	AGCGAGATTA	6000
TGGCAAGTTT	TATCGTGATG	CAGAAGTAGA	ACGCCTCGCT	CAAGGAGCGG	CGGGTGTCAA	6060
GCGGACAACA	GGCCAACACC	CGGGGGGAAT	CGTTGTTATT	CCGAAC TACA	TGGATGTCTA	6120
CGATTTTACG	CCTGTCCAGT	ATCCAGCAGA	TGATGTCACG	GCTGAATGGC	AGACCACTCA	6180
CTTTAACTTC	CACGATATCG	ATGAGAACGT	CCTCAAAC TC	GATGTACTGG	GACATGATGA	6240
TCCGACTATG	ATTCGAAAAC	TTCAGGATTT	GTCTGGTATT	GACCCTAATA	AAATTCCTAT	6300
GGATGACGAA	GGCGTGATGG	CACTCTTTTC	TGGGACTGAT	GTGCTAGGGG	TAACACCTGA	6360
ACAAATTGGA	ACGCCTACGG	GTATGTTGGG	GATTCCAGAG	TTTGGAACAA	ATTTTCGTACG	6420
TGGAATGGTA	GACGAAACCC	ATCCGACAAC	CTTTGCGGAA	TTGCTTCAGC	TGTCTGGTCT	6480
GTCCACGGT	ACTGATGTTT	GGTTGGGGAA	TGCTCAGGAT	CTGATTAAGC	AAGGAATAGC	6540
GGACCTATCG	ACTGTTATCG	GTTGTCGGGA	CGACATCATG	GTTTACCTCA	TGCATGCGGG	6600
TCTGGAACCT	AAGATGGCCT	TTACCATTAT	GGAACGGGTA	CGTAAGGGTT	TGTGGCTAAA	6660
GATTTCAGAA	GAGGAGAGAA	ATGGCTATAT	CGAAGCAATG	AAGGCTAATA	AGGTGCCAGA	6720

641

GTGGTATATC GAATCCTGTG GGAAAATTAA GTACATGTTT CCTAAGGCCC ATGCGGCAGC	6780
CTACGTTATG ATGGCCTTGC GTGTAGCTTA CTTCAAGGTT CACCATCCTA TTTATTACTA	6840
CTGTGCTTAC TTCTCCATTC GTGCTAAGGC TTTTGATATC AAGACCATGG GTGCGGGCTT	6900
GGAGGTCATC AAGCGCAGAA TGGAAGAAAT CTCTGAAAA CGGAAGAACA ATGAAGCCTC	6960
TAATGTGGAA ATCGATCTCT ATACAACCTCT TGAGATTGTC AATGAGATGT GGGAACGAGG	7020
TTTCAAGTTT GGTAATTAG ATCTCTACTG TAGTCAGGCG ACAGAGTTCC TCATCGACGG	7080
GGATACCCTT ATCCCACCAT TTGTAGCAAT GGATGGTCTG GGAGAGAACG TTGCCAAGCA	7140
ACTGGTGCGG GCGCGTGAAG AGGGAGAATT CCTCTCTAAA ACAGAACTAC GCAAGCGTGG	7200
TGGACTCTCA TCAACCTTGG TTGAAAAGAT GGATGAGATG GGTATTCTTG GAAATATGCC	7260
AGAGGATAAC CAGTTGAGTT TGTGTTGATGA GTTGTGTTTAA AAAATTGCTT AATAATCTAT	7320
TAAAAGAGGC TAACGTATAT CCAATAGATT TACATTAGCT TTCTTTTTTG TTAAAATAGT	7380
CTATGGAAAG AGGGTGAGAG TATGTCAAAG ATGAGTATAA GCATCCGTCT GGATAGTGAG	7440
GTTAAGGAGC AGGCCCAACA GGTGTTTAGT AATCTGGGAA TGGATATGAC AACAGCTATT	7500
AATATTTTCC TTCGTCAGGC AATTCAATAT CAGGGATTAC CTTTTGATGT TAGACTAGAC	7560
GAAAATCGGA AGTTGCTCCA AGCGTTAACG GATTTAGACC AAAATCGTAA TATGAGCCAG	7620
TCTTTTGAAT CAGTCTCAGA TTTGATGGAG GACTTACGTG CTTAAGATTC GTTATCATAA	7680
ACAGTTTAAA AAAGATTTTA AGTTGGCTAT GAAGCGTGGT TTGAAGGCAG AATTATTAGA	7740
AGAAGTTTTG AATTTTCTGG TTCAAGAAAA AGAACATCCT GCCAGAAATC GTGATCATTC	7800
ATTGACGGCA TCCAAGCATT TTCAAGGAGT TCGTGAATGC CATAACCAGC CAGATTGGCT	7860
TTTGGTTTAT AAAGTAGACA AGTCGGAATT GATTTTAAAT TTGCTGAGGA CAGGCAGTCA	7920
CAGTGATTTA TTTTAATCTA TTTTAAGGGG GTTCTCATGA AACTAAGAAT ATTTGCGGAA	7980
GATAAGCCGG CTAAGAAGGT ATTTGAATAT CAATTAGAAC TTGCTGATCG TACAATTCTT	8040
CTATCGACAG CACTCTTGTC AGGTGCTATT GCTTTAGCAG GAATCTTTTC TGCTTTGAAA	8100
GAAAAATAAA AATAGAAAAG AGAAAACAGA ATGGTTTTTAC CAAATTTTAA AGAAAATCTA	8160
GAAAAATATG CGAAATTGTT GGTGCGAAC GGAATTAACG TGCAACCTGG TCACACTTTG	8220
GCTCTCTCTA TTGATGTGGA GCAACGTGAA TTGGCACATC TAATCGTGAA AGAAGCTTAT	8280
GCCTTGGGTG CGCATGAGGT CATCGTTCAG TGGACAGATG ATGTGATTAA CCGTGAGAAA	8340
TTCTCCATG CCCCAGTGGA GCGTTTGGAC AATGTGCCAG AATACAAGAT TGCTGAGATG	8400
AACTATCTCT TGGAGAATAA GGCTAGCCGT CTTGGAGTTC GTTCATCTGA TCCAGGTGCC	8460

642

TTGAACGGAG TGGACGCTGA CAAGCTTTCA GCTTCTGCTA AAGCTATGGG ACTTGCCATG	8520
AAGCCTATGC GTATCGCAAC TCAATCTAAC AAGGTTAGCT GGACTGTAGC AGCTGCAGCA	8580
GGACTTGAGT GGGCTAAGAA AGTCTTCCCA AATGCTGCGA GCGACGAAGA AGCAGTTGAT	8640
TTCCTTTGGG ACCAAATTTT CAAAACCTGC CGTGTCTACG AAGCAGATCC TGTTAAGGCT	8700
TGGGAGGAAC ATGCAGCCAT TCTCAAGAGC AAGGCCGATA TGCTTAATAA GGAGCAATTT	8760
TCAGCCCTTC ACTACACAGC GCCAGGAACA GATTTAACAC TTGGTTTGCC AAAGAACCAC	8820
GTTTGGAAT CAGCTGGTGC TGTCAATGCA CAGGGCGAAG AATTCTTGCC AAATATGCCA	8880
ACAGAAGAGG TCTTCACAGC GCCTGACTTC CGTCGTGCAG ATGGTTATGT CACTTCTACA	8940
AAACCGCTTA GCTACAACGG AAATATCATT GAAGGCATTA AGGTGACCTT TAAGGATGGA	9000
CAAAATCGTAG ATATCACTGC TGAGAAGGGT GATCAGGTTA TGAAAGACCT TGTCTTTGAA	9060
AATGCGGGTG CGCGTGCCTT GGGTGAATGT GCCTTGGTAC CAGATCCAAG TCCAATTTCT	9120
CAGTCAGGCA TTACCTTCTT TAACACCCTT TTCGATGAAA ATGCGTCAA CCACTTGGCT	9180
ATCGGTGCAG CCTATGCGAC TAGCGTTGTT GATGGAGCGG AGATGAGCGA AGAGGAGCTT	9240
GAAGCTGCAG GGCTTAACCG TTCAGATGTT CACGTAGACT TTATGATTGG TTCTAACCAA	9300
ATGGATATCG ATGGTATTCG TGAGGATGGA ACGCGGGTAC CTCTTTTCCG TAATGGGAAT	9360
TGGGCAAATT AAGGAGATAA TATGTTAGGA AGTATGTTCTG TTGGTCTCCT AGTGGGATTT	9420
TTAGCAGGTG CTATGACCAA TCGTGGAGAG CGAATGGGAT GTTTTGAAA AATGTTTCTC	9480
GGTTGGATCG GAGCCTTTCT AGGTCACCTG CTCTTTGGAA CTTGGGGGCC AGTTTATCA	9540
GGAACAGCTA TTATCCCAGC GATTTTAGGA GCCATGATTG TTTTAGCTAT TTTTGGAGA	9600
CGAGGAA	9607

(2) INFORMATION FOR SEQ ID NO: 81:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 14231 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 81:

CTACAAGATA ATTCCAGCTA TAACATCCGC TATAATAGTA AGAGCGAGCT CTATGATAAG	60
GCTCATTAGT TTCACCTCCT CTCACGAACC CATAGGAACG TAATCGGTAA CCGATGACAA	120
AAATAGTATA CCACAATACA TTTAGATCAT CAAGGTCACCT TAATTCTTGA AATATCAGAT	180
CTAAGAGAAA AATCTTTAAA ATCAGAAAAA CGCATAATAT CAGGTGTGCA AAAACTTGAT	240

643

ACTATGCGTT	TTATTGTGGG	AAGGTTTACT	CCATTTTCTC	CTGAAATTGA	GTTTTTGTCC	300
AGCCTCTGTT	TTTAGGGTTG	CTAAGAAAAT	AATGTCATGT	GGTGAATATT	TGTAAATCAG	360
TCAGCAGACA	GAACGATACT	CTTCGAAAAT	CTCTTCACAT	CATGTCAGCT	TCGTCTTTCC	420
GTATATATGT	GACTGACTTC	ATCAGTTCTA	TCTACAACCT	CAAAACAGTG	TTTCGAGCTG	480
ACTTGATCAA	TTTTCAAATC	TGTACTTTGA	GCAAGCTGAG	ACTAGCTTCC	TATTTGATTT	540
TCATTGAATA	TCAGAAACCC	ATTCTCCATC	AAATAATTCTG	ACTGCGTCTA	ATAATTTTTG	600
ATCTGGCACG	GTGTCTGAAA	TAAAGGTTGT	GTATTTGGAG	AGGGGATTAA	TTTTAAAAAA	660
TCCAGTCTTG	TAAAATTTAG	AACTATCAAT	CAGTAAGATG	GTTTCATGGG	CTTTGTCAAT	720
AATATTCTTT	TTTGAAATAG	CTTGGCTGAG	AGAAGCTTCA	TAAACATATT	GGTCATCAAT	780
ACCTCTTGCT	GAACAAAATG	CTAAATCGAT	ATTAAAATGA	TCTAATAAAG	AATTTTCCTT	840
ATCATAGTTG	ACCACGGAAC	AGGATTGATG	TTTGACCTCG	CCAGATGTGA	TAAAGATTTT	900
GGAGCTATCT	TTAACAGTTT	CAGATAGGGT	TTGTGCAGTA	TGTAAACCAT	TTGTAAAAAT	960
AATCAAATTA	TCAAGTTCAG	AAAGATAGGG	ACAGAGTTCG	TAGACAGTAG	TACTAGAATC	1020
TAGATAGATA	CACATACCAG	ACCGAATAAA	GTCTTTAGCG	AGACTAGCGA	TTAGTCTTTT	1080
TTGCCTAGTA	CTTTCTCCTT	CACGTATTTG	ATGAGAAAGT	TCAATTGTGT	TCATAGAGGA	1140
CAGGGTCACG	TATCCGTGCT	TTCTTTTGAT	AAGACCTTGA	TTTTCTAAGA	AAATTAAATC	1200
ACGACGTAAG	GTACTTGTGC	TGGAGAAAGT	GATTTCTGCC	AGCTCTTTTA	CGGCAATTCT	1260
TTTTTTCTTT	TTGATAATTT	CAATCAATTC	AAGTACACGT	TCATCTTTTA	TCATAAGCTC	1320
CTCCTAATTT	ATCATTTCAA	CTATATTATA	GCACAAATTG	GAGGAATTTG	AATTATTTTT	1380
ATGAATATTG	GGTTAACATT	TGAACATTAT	TCAAGTAAGC	GTTACATAT	TGAAAAAATA	1440
AAACGTGGGG	ATTATAATAA	AGTTAATCmA	GGACGAAGAG	AGAAGAAAAA	TGGAAGCGGT	1500
TTTAGCAATA	GATTTAGGTG	CGACTTCTGG	AAGAGCAATC	GTTGGTTACC	TTTCTGAAAA	1560
TAAACTAGTA	ATGGAAGAAA	TAAATCGCTT	TTCTAATCTA	CCTATTAGAG	TAAAAGGGCA	1620
TTTATCTTGG	GATATTGACT	TTCTACTAGC	TAAAATTCTT	GAAAGTATCC	GCTTGGCTAA	1680
TACTAGTTAC	AAGATTTTAT	CTATCGGTAT	TGACACATGG	GGAGTTGATT	TTGGACTGAT	1740
TGATAATGAA	GGTAAGCTGT	TATTACAACC	TGTTCAATTAT	CGTGATGAAA	GAACAAAGGG	1800
AGTGTTAAAG	GAAATATCTG	AAATGACTGA	ATTAGAAAAA	CTGTATTCAG	AGACAGGAAA	1860
TCAGATTATG	GAGATAAATA	CCTTGTTTCA	ACTCTTTAAG	GCACGTCAAG	AATCTCCTGA	1920
CTCTTTCTAT	AAGACCAATA	AGATTCTTTT	AATGCCAGAT	TTGTTTAATT	ATCTCTTGAC	1980

644

AGGTAAGTTT	GCTACAGAAA	AAAGCATTGC	TTCAACAAC	CAATTATTTG	ATCCTAGGAG	2040
TCAAAATTGG	AATCAGAATA	TCTTAAACT	ATTTGAATTG	GATTCATCTT	TACTTCCTGA	2100
AATTGTTTCA	GAGGGAAATG	TTCTTGGAAG	GATAAAAGAG	GAGTATGGTT	TAGGCGATAT	2160
TCCTGTTGTG	AATGTTTGTA	GTCATGATAC	AGCAAGCGCG	ATTGTCTCAG	TACCTAAGAC	2220
AGAAGGTAGT	TTATTTATTT	CATCAGGTAC	TTGGTCTTTG	GTTGGAGTGG	AACTTACTTC	2280
ACCGATTCTT	ACTACCGAAT	CCTTCAGTTA	TGGATTTACA	AATGAAGTCG	GTAAAGATGG	2340
AGTGATTACA	TTTCTGAAGA	ATTGTACAGG	GTTGTGGATC	ATAGAGGAAC	TAAGACGTTC	2400
ATTTGAACGA	AGAGGGAAAG	CCTATTCTTT	TGATGATATT	AGGACAATGG	TGGAGAAAGA	2460
AAAAGAAAAT	CTTCCTCTGA	TTGATACTGA	ATCAACTGAA	TTTGCAACAG	AATCTGATAT	2520
GCACAAGACT	TTGACAGAAT	ATCTAGCTTA	TCATCATGAA	ACTAGAGAGT	GGACAGATGG	2580
ACAACTATTT	AAGATTGTTT	ATGAAAGCCT	AGCTGAAACG	TATAGGAAAG	CGATAGAGTT	2640
ACTAGAAGAA	CTAACTCATA	AGGTTTATAA	GAGGATATAT	GTGATTGGAG	GAGGTGCTAG	2700
AGCCAGTTAC	TTTAACCAAA	TGATTGCTGA	TAGAACTGGT	AAAGAGGTTC	TTACAGGTTT	2760
GACTGAGGCT	ACAGCTGTGG	GGAATATTGT	TGTGCAGCTC	ATAGCTATGG	GACAATTAAA	2820
AGGGATGGAA	GAGGCTCACC	ATGTTATTGA	GGAGTTTCTA	CAATTAGAGA	GTTATTACTC	2880
CCAAAAGAAT	TAAAAAGATT	GAGAGTTTGT	AAATTTGCCT	CCCTCCCCCT	TCTTAGCTTT	2940
TGTGCAGGAA	GGGGGGATAA	TTGGTGAATT	GAAAAATATT	TAGTGTTTTG	ATATGAGGAG	3000
GACAAGGATG	TCAGATGTAA	AACAAGAATT	AATTAAATAT	GGTAAGAAGC	TAGTAGAAAC	3060
AGATTTGACG	AAAGGAACAG	GTGGGAATCT	CAGCGTTTTT	GATCGTGAAA	AACAATTGAT	3120
GGCAATTACC	CCGTCGGGTA	TTGATTTCTT	TGAAATCAAA	GAATCCGATA	TTGTAGTGAT	3180
GGATATTAAT	GGAAATGTTG	TAGAGGGAGA	ACGCTTGCCA	TCTAGCGAAT	GGTATATGCA	3240
TTTGATTCAA	TATCAAATC	GTGATGATAT	CGATGCAATT	ATCCATGCTC	ATACAACTTA	3300
TGCAACAGTA	TTAGCTTGTC	TCAGAGAACC	ACTTCCAGCG	AGTCATTATA	TGATTGCAGT	3360
GGCAGGGAAA	GATGTTCTGG	TAGCTGAGTA	TGCAACATAT	GGCACGAAAG	AATTGGCTGT	3420
GAATGCAGCT	AAAGCAATGG	AAGGTCGTAG	AGCAGTTTTA	CTAGCGAATC	ATGGAATTTT	3480
AGCAGGTGCA	CAAAATTTAT	TGAATGCATT	TAATATTGTT	GAAGAAGTTG	AATATTGTGC	3540
AAAAATTTAT	TGTTTAGCTA	AGAATTTTGG	AGAGCCAGTA	GTTCTTCCTG	ATGAGGAGAT	3600
GGAATTGATG	GCAGAAAAAT	TTAAAACATA	CGGTCAGAGA	AAATAGGGAG	GATATTAATG	3660
TTAAAACATA	TACCGAAAAA	TATTTCTCCA	GATTTATTGA	AGACTTTAAT	GGAAATGGGA	3720
CATGGAGATG	AAATAGTATT	AGCTGACGCG	AATTATCCTT	CTGCCTCATG	TGCAAATAAG	3780

645

CTAATTCGTT GTGATGGTGT AAATATTCCA GAATTATTAG ATTCCATTCT GTATTTAATG	3840
CCATTAGATA GTTACGTCGA TAGTTCAATT CAGTTTATGA ACGTTGTTTC GGGTGATGAT	3900
ATTCTAAGA TATGGGGTAC CTATAGACAG ATGATTGAAG GTCATGGTAC AGATCTTAAA	3960
ACGATTACTT ATCTTAGAAG AGAAGACTTT TATGAACGTA GTAAGAAAGC TTATGCTATT	4020
GTTGCTACAG GAGAACTTC ACTTTATGCT AATATTATCC TTAAGAAAGG AGTAGTTGTT	4080
GAAAGAGAAA ATGTTCAATA GAGGAATTTT AGTTGCCAGT CATGGTAATT TTGCTAGCGG	4140
AGCTCTCATG ACCGCAGAAA TGTTTGTGG TGAGACAACA AATGATAGAG TTAGGACATT	4200
AGGTTTGATG CCTGGAGAGA ATATTGTAGA GTTTGAGCAT TATTTTAAAA ATCAAGTGGA	4260
TGAACTGTTA GACTCAAATC AAGAGGTTAT CGTTTTGACT GACTTGATTG GAGGAAGTCC	4320
TAATAATGTG GCTTTGTCAC GGTTTTTAAA TTTGGATTCA GTTGATATTG TAACAGGGTT	4380
TAATATCCCT CTCCTAGTGG AATTAATATC AAGTTATGAT TCAAAAATCA ATTTAGAAGA	4440
AATTGTTTAC AATGCTCAAA ATAGTTTGTT TAATGTTAAA CAACAACTTA ACGTAGAGGA	4500
GGAAGAAGAT TTATGTCTAT AGAGTTTGTT CGTATTGATG ACCGTCTGGT ACATGGTCAA	4560
GTTGTCACTA CGTGGCTAAA AAAGTATGAT ATTGAGCAAG TTATCATTTGT TAATGATCGC	4620
ATCTCAGAAG ATAAAACACG ACAATCTATT TTAAAGATTT CTGCACCGGT AGGTTTAAAA	4680
ATTGTTTTCT TTAGTGTAAG ACGGTTTGTT GAAGTTTAA ACTCTGTGCC AATAAAAAAG	4740
AGAACAATGC TGATATATAC AAATCCAAAA GATGTGTATG ATTCTATTGA AGGAAATTTA	4800
AAATTGGAGT ACCTCAATGT AGGACAGATG AGTAAAACGG AGGAAAATGA AAAGGTAACG	4860
GGAGGTGTAG CTCTAGGTGA AGAAGACAAA TATTATTTTA AGAAAATAGT TGATAAGGGA	4920
ACGAGAGTTG AAATTCAAAT GGTTCCTAAT GATAAAGTTA CAATGTTGGA AAAATTTTTA	4980
TAAAAATAAT TTAAGGAGGT ACAGTATATG CTATTCACAC AAGCATTACT GGTGACATTA	5040
GTTGGGATTA TTGCCACTAT TGAATAAAT GGACCGTTAT TTATGATTCA CCGTCCGTTA	5100
GTTACAAGTG CAATGGTTGG CTTAGTATTA GGAGATTTCA CCCAAGGTGT TCTTATTGGT	5160
TCAGCTCTTG AATTAAGTTG GCTCGGTGTA ACAGGTATTG GAGGTATATC TCCACCAGAT	5220
ACTATTTTCA GTGCGATTAT TGGTACTGCA TTTGGTATTT TATCTGGTCA AGGAGAACT	5280
GCTGGTATCG CTATAGCAGT TCCAATTGCA GTTGCTACCC AACAGTTGGA TGTTCTTGCA	5340
AAAACTTTAG ATGTTTATTT TGTGAAAAAA GCTGATAATG ATGCTAAAAA CGGAGATTAT	5400
TCAAAGATCG GTTTTTATCA TTATTCAAGT TTGGTTTTAA TCACGTTATT TAAAATTGTA	5460
CCAATTTTCC TAGCTATTAT GCTTGGAGGG GAATATGTGG CAGACTTGTT TGCTAAGGTT	5520

646

CCACCAATCG	TTATGCAGGG	ACTTAACTCT	GCAGGTGCTT	TACTACCTTC	AATTGGTTTT	5580
GGTATGCTTT	TAAATATGAT	GCTCAAGAAA	AATATGTGGG	TATTCTTGTT	GATTGGATTC	5640
ATTTGTTCTG	TGTATGGAGG	AATGTCAACC	ATTGGGATCT	CACTAGTTGG	TATTGCGGTA	5700
GCATACTTCT	ACGATATGAT	TGGAAGCAAA	CCACAAGAAA	CAACTTCAAG	TAGTGATGTT	5760
GAGGAGGATC	TTGATCTATG	ATGAATAATA	AAGTAACTAA	AGTTGAACTT	AAAAAAGTTT	5820
TCAAACGAAG	TTTTATGTAT	GGTCTTCAT	GGAACATGA	GAGAATGCAG	AACCTAGGTT	5880
TTCTATATAC	AATTCTTCCA	GTATTGAAAA	AACTATACCC	AGACAAAGAT	TCAGCTTCTC	5940
CTGCAATGAA	ACGTCACCTT	GAGTTTTTCA	ATACTCATCA	AACAGCGGCA	CCATTTATTC	6000
TTGGAGTTAC	TTCCGCTATG	GAAGAACAAG	AAGGAAATGA	AGGTGCAGCT	TCAATTACTG	6060
GTATTAAAGT	TGGCTTGATG	GGGCCACTGG	CTGGTCTAGG	AGATAGTTTG	TTCTGGCTGA	6120
CACTAGTTCC	TATCTGTTTT	AGTATTGGTG	CGTCTTATTC	TAAAGACGGC	GGTGCTTTAG	6180
GTATCTTTAT	CGCCTTAATA	TTGTTTAATA	TTATTAATAT	TCCTGTTAAA	TATTTGCGTT	6240
TGAAATATGG	GTATACTAAG	GGTCTAGTC	TTATCCAAGA	AAATAATACA	AAAGGAACAT	6300
TGAATCGCGT	TACGAGTATG	GCGACAGCAT	TAGGGCTAGT	ACTAGTGGGT	GGTTTGATTC	6360
CATCAATGGT	TGGTATTAAT	TTTGGATTAG	AATTTAAGCA	GGGGGAACTT	GTTATTTCTG	6420
TTCAAGAAAT	GATTACAAAA	TTAATTCCAG	GATTTATCCC	TATGGCTTTG	ACTTTATTAA	6480
TGTGTAAATT	AATTAGAAAA	GGAAAGAATC	CGGTTGTA	CGGTTGTA	CGGTTGTA	6540
TTGGAGTTAT	TCTAGTTGTT	TTAGGAATTT	TGAAGTAGTA	GAAAGTGTGG	AGGTGGTATT	6600
TGGGATATCA	CCTCCATTTT	GGAAGAGAGG	TAAAGAGTGA	AATTATGGTA	TAAGAAAGCT	6660
GCCGCAAATT	GGAATGAAGC	CTTGCCGATT	GGGAACGGTC	ATTTAGGTGG	TATGATTTAT	6720
GGTTCAGCTA	CAAAAGAATG	TATTCAACTA	AACGATGAGA	CTATTTGGTA	TAGAGGAAAG	6780
TCAGATAGAA	ATAATCCAGA	CTCACTATTG	CATCTTAAAA	AAATTCGGGA	ATATCTTTTA	6840
GATGGAGAAA	TTCAGAAAGC	CGAAGAATTG	ATAAAGTTAA	CAGTGTTTGC	TACCCCAAGA	6900
GATCAAAGCC	ACTATGAATT	ACTTGGGGAA	CTTTACATTG	AGCATATAGA	TATTCAGTCT	6960
TGTGCTCTTT	CATTGTATGA	AAGAGAGCTA	GATTTAGATA	CAGCTATTTT	TAATGTTGTG	7020
TTTGAGCCTA	ATAGTTGTAA	TTTACAAATA	AAAAGAGAAT	ATTTTACGAG	TTTTAATAAG	7080
AATATTTTAT	GTTGCCGTAT	AGTGTCATCA	GTTCAAAACA	CATTAAATTT	AAACATTAAT	7140
TTGGGTAGAA	ATAAACGGTT	TAATGACGAA	GATCTAAAC	TGGATTCAAG	TACAATTTTA	7200
ATGTCGGCCT	CTGCTGGAGG	TAGAAAAGGT	GTTTCAGTTT	AAGTAGTATG	TCATTCTAAG	7260
GTTACGGATG	GTGAAGTAAG	TGTATTGGGA	GAGACAATAG	TTATTCGGAA	TGCTACAGAG	7320

647

GTATTTCTTT ATCTCAAATC AATGACGGAT TATTGGGGAA ATATAGATAT TTCTTCTCTT	7380
CAGGGAGAAT TTAGTAGTAT TGATTACTTT ACAGAAAAAG ATGAACATGT AAAAAAATAT	7440
CAGGAGCAAT TTAATAGAGT TGATTTTAAA CTAGACTATA GTAAAGGTTG TCTTAGCATT	7500
CCAACGAATC TACTTCTTGA AAACACTAAA AAGTATAGTA ACTACTTGAC TAACTTGTTA	7560
TTTCATTATG GAAGATATCT GTTAATATCG TCTAGTCAAC CGAATGGTTT ACCTGCCAAT	7620
CTTCAAGGAA TATGGTGTGA TGAATTAAAT CCAATTTGGG GTTCTAAATA TACGATTAAT	7680
ATTAATACTC AAATGAATTA TTGGATGGTA GGTCCATGTG ATTTACCAGA AGTAGAATAT	7740
CCATTATTTG ATATGCTCGA AAGAATGAGA GAACCGGGAA GACTAACCGC TAAGAAAATG	7800
TATGGAGCTA GAGGTTTTAC AGCACATCAT AATACGGATG GTTTTGGCGA TACGGCTCCC	7860
CAATCTCATG CCATGGGGGC TGCAATTTGG GTATTAATA TTCCATGGTT ATGTACTCAT	7920
ATTTGGGAAC ACTATTTATA TTTCCAAGAT GAGCGTATTC TTACGGAACA TTTTGAAATG	7980
ATAAAAGAAG CATTTCTTTT CTTTGAAGAT TATTTATTTG AGGTGGATGG CTACTTGATG	8040
ACAGGTCCAA GTGTCTCACC GGAAAATAAA TATCGCTTAA AAAATGGTAT TGAAGGAAAT	8100
GCTTGCTCTAT CATCTACAAT TGATAATCAA ATTCTAAGAT ATTTTGTGA TTCATGCATT	8160
GGCATTGCAA AACAATTAGG AGACAATTCG GATTTTATTA GTCGTGTGAA GGAGTTAAAA	8220
AAGAACTAC CTAAAACAAA AATAGGTAGT AATGGGCAAA TCCAAGAATG GTTAGAAGAT	8280
TATGAAGAAG TAGAGCCTGG GCATAGACAC ATTTACCTC TATTTGGGCT TTATCCTTAT	8340
AATGAGATTG ATATTCATAA AACTCCGGAA TTAGCAGAAG CAGCTAAAAT CACTATCAAT	8400
AGGAGATTAT CAAACGCTAA TTTTTTATCT TCACAGGAGA GGGAGCAAGC GATTAATAAT	8460
TGGTTAGTAA GTGGTTTGCA TGCTAGTACA CAAACAGGTT GGAGTGCTGC ATGGCTGATT	8520
CATTTTTTTG CGAGACTATA TCAAGGTGAA CCTGCTTATA ACCAGATTAA TGGTTTGTTA	8580
AATAATGCGA CTCTTGGCAA TTTATTTCTT GACCATCCAC CATTTCAAAT TGATGGTAAT	8640
TTAGGTTTGG TGAGTGGAAT TTGTGAATTA TTAGTACAGA GCCATCATAA TTGGTTATCA	8700
CTAATTCCAG CTTTACCTTC TGCTTGGTCA GAAGGAGAAG TGAAAGGTTT CAGAGTAAGA	8760
GGAGGATATA AGGTATCGTT TGCTTGGAAT AATGGGGATA TAACATTCCT AAAATTGGAA	8820
GGAGGAAACA AAGATCAAAA AGTAAGAGTA AGAATATATG GCAAAAATAC TGATGTACAA	8880
AATATTGAAT TGGTATTTAA TTCAGAAAAA ATTATTGAGT TAAATTTTTA GGTATAAGTC	8940
ATGAATAAAG AAAAAATAAA AAGAAAATTA ATCACAATAT TGTTTGTATG TATTGGGATG	9000
TTATGTTTTG GATTGTTAGC AGGAGTTAAG GCTGATAATC GTGTTCAAAT GAGAACGACG	9060

648

ATTAATAATG AATCGCCATT GTTGCTTTCT CCGTTGTATG GCAATGATAA TGGTAACGGA	9120
TTATGGTGGG GGAACACATT GAAGGGAGCA TGGGAAGCTA TTCCTGAAGA TGTAAGCCA	9180
TATGCAGCGA TTGAACTTCA TCCTGCAAAA GTCTGTAAAC CAACAAGTTG TATTCCACGA	9240
GATACGAAAG AATTGAGAGA ATGGTATGTC AAGATGTTGG AGGAAGCTCA AAGTCTAAAC	9300
ATTCCAGTTT TCTTGGTTAT TATGTCGGCT GGAGAGCGTA ATACAGTTCC TCCAGAGTGG	9360
TTAGATGAAC AATTCCAAAA GTATAGTGTG TTAAGGTTG TTTTAAATAT TGAGAATTAT	9420
TGGATTTACA ATAACCAGTT AGCTCCGCAT AGTGCTAAAT ATTTGGAAGT TTGTGCCAAA	9480
TATGGAGCGC ATTTTATCTG GCATGATCAT GAAAAATGGT TCTGGGAAAC TATTATGAAT	9540
GATCCGACAT TCTTTGAAGC GAGTCAAAAA TATCATAAAA ATTTGGTGTT GGCAACTAAA	9600
AATACGCCAA TAAGAGATGA TCGGGGTACA GATTCTATCG TTAGTGGATT TTGGTTGAGT	9660
GGCTTATGTG ATAAGTGGGG CTCATCAACA GATACATGGA AATGGTGGGA AAAACATTAT	9720
ACAAACACAT TTGAACTGG AAGAGCTAGG GATATGAGAT CCTATGCATC GGAACCAGAA	9780
TCAATGATTG CTATGGAAAT GATGAATGTA TATACTGGGG GAGGCACAGT TTATAATTTT	9840
GAATGTGCCG CGTATACATT TATGACAAAT GATGTACCAA CTCCAGCATT TACTAAAGGT	9900
ATTATTCCTT TCTTTAGACA TGCTATACAA AATCCAGCTC CAAGTAAGGA AGAAGTTGTA	9960
AATAGAACAA AAGCTGTATT TTGGAATGGA GAAGGTAGGA TTAGTTCATT AAACGGATTT	10020
TATCAAGGAC TTTATTGAA TGATGAAACA ATGCCTTTAT ATAATAATGG GAGATATCAT	10080
ATTCTTCCTG TAATACATGA GAAAATTGAT AAGGAAAAGA TTTCATCTAT ATTCCCTAAT	10140
GCAAAAATTT TGAATAAAAA TAGTGAGGAA TTGTCTAGTA AAGTCAACTA TTTAACTCG	10200
CTTTATCCAA AACTTTATGA AGGAGATGGG TATGCTCAGC GTGTAGGTAA TTCCTGGTAT	10260
ATTTATAATA GTAATGCTAA TATCAATAAA AATCAGCAAG TAATGTTGCC TATGTATACT	10320
AATAATACAA AGTCGTTATC GTTAGATTTG ACGCCACATA CTTACGCTGT TGTAAAGAA	10380
AATCCAAATA ATTTACATAT TTTATTGAAT AATTACAGGA CAGATAAGAC AGCTATGTGG	10440
GCATTATCAG GAAATTTTGA TGCATCAAAA AGTTGGAAGA AAGAAGAATT AGAGTTAGCG	10500
AACTGGATAA GCAAAAATTA TTCCATCAAT CCTGTAGATA ATGACTTTAG GACAACAACA	10560
CTTACATTAA AAGGGCATA TGGTCATAAA CCTCAGATAA ATATAAGTGG CGATAAAAAAT	10620
CATTATACTT ATACAGAAAA TTGGGATGAG AATACCCATG TTTATACCAT TACGGTTAAT	10680
CATAATGGAA TGGTAGAGAT GTCTATAAAT ACTGAGGGGA CAGGTCCAGT CTCTTTCCCA	10740
ACACCAGATA AATTTAATGA TGGTAATTTG AATATAGCAT ATGCAAAACC AACAACACAA	10800
AGTTCTGTAG ATTACAATGG AGACCCTAAT AGAGCTGTGG ATGGTAACAG AAATGGTAAT	10860

649

TTTAACTCTG	GTTCCGGTAAC	ACACACTAGG	GCAGATAATC	CCTCTTGGTG	GGAAGTCGAT	10920
TTGAAAAAAA	TGGATAAAGT	TGGGCTTGTT	AAAATTTATA	ATCGCACAGA	TGCTGAGACT	10980
CAACGTCTAT	CTAATTTTGA	TGTGATTCTA	TATGACAATA	ATAGAAACGA	AGTTGCTAAG	11040
AAACATGTTA	ATAATTTGTC	GGGTGAATCT	GTTAGTCTAG	ATTTCAAAGA	AAAAGGAGCA	11100
AGGTATATTA	AAGTTAAAT	ACTAACGAGT	GGAGTGCCTT	TGAGTTTAGC	AGAAGTAGAG	11160
GTTTTTAGAG	AATCAGATGG	TAAGCAATCT	GAAGAGGATA	TAGATAAAAT	AACAGAAGAT	11220
AAAGTAGTCT	CTACAAATAA	GGTAGCTACT	CAAAGTTCAA	CCAATTATGA	GGGTGTAGCT	11280
GCTTTAGCAG	TTGATGGTAA	TAAAGATGGA	GATTACGGAC	ATCATTCGGT	GACTCATACT	11340
AAGGCAGATT	CTAACGCTTG	GTGGCAGGTC	GATCTGGGAG	AAGAGTTTAC	GGTTTCTAAA	11400
GTTGATATTT	ATAATAGAAC	AGATGCCGAA	CCTCAGCGTT	TATCTAATTT	TGATGTTATT	11460
TTTCTATCTT	CATCAGGAGA	AGAAGTTTTT	AGAAGACATT	TTGATAAAGT	AGTTGATGGT	11520
TTGTTATCTT	TAAAAGTACC	TTCTGTAGGG	GCTAAGCTAG	TCAAAATAGA	ATTAAAATCA	11580
GCAGCTATTC	CGTTAAGTTT	AGCGGAAGTT	GAAGTCTATG	GTTCAAAGAG	AACTCCGAAG	11640
AAACTTTCTA	ATATTGCATT	AACAAAAGAA	ACTCGACAGA	GTTCAACGGA	TTACAATGGT	11700
TTTTCTCGTC	TAGCAGTTGA	TGGAAATAAA	AACGGAGATT	ATGGTCATCA	TTCAGTGACT	11760
CATACCAAAG	AAGATTCTCC	TTCATGGTGG	GAGATAGATT	TAGCACAAAC	CGAAGAATTA	11820
GAAAAGTTAA	TTATTTATAA	TAGAACAGAT	GCTGAAATTC	AGAGATTATC	AAATTTTGAT	11880
ATTATTATAT	ATGATTCAAA	TGATTATGAA	GTTTTTACAC	AACATATTGA	CAGTTTAGAA	11940
AGCAATAATC	TATCCATAGA	CTTAAAAGGA	CTGAAGGGAA	AAAAGGTTAG	AATTTCTTTG	12000
AGAAGCGCAG	GAATTCCTTT	AAGTTTAGCA	GAGGTAGAGG	TTTATACTTA	TAAGTAATTT	12060
TAAAAATTAT	CACCCAGGCT	ACCGTAAATA	TAATGGAGAT	GGTAGTATGA	AAGAAACAGA	12120
AAAATAAGAG	GAAAATAGTA	TGATTCAACA	TCCACGTATT	GGGATTCGTC	CGACTATTGA	12180
TGGTCGTCGT	CAAGGTGTAC	GCGAATCACT	TGAAGTGCAA	ACAATGAACA	TGGCTAAAAG	12240
TGTGGCAGAT	TTGATTTCAA	GCACATTGAA	ATATCCAGAT	GGGGAACCTG	TGGAATGCGT	12300
GATTTCTCCA	TCTACTATTG	GCCGTGTACC	AGAGGCTGCA	GCTTCCCATG	AGTTGTTTAA	12360
AAAATCAAAT	GTTTGCGCAA	CAATTACAGT	TACACCATGC	TGGTGTTATG	GTAGTGAAAC	12420
TATGGATATG	TCTCCAGATA	TTCCTCATGC	TATTTGGGGA	TTTAATGGGA	CAGAACGCCC	12480
AGGAGCTGTC	TATCTTGCA	CTGTACTAGC	TTCACATGCT	CAAAAAGGGA	TTCCAGCCTT	12540
TGGGATTTAT	GGAAGAGATG	TTCAGGAAGC	TAGTGACACA	GATATTCCAG	AAGATGTCAA	12600

650

AGAAAACTT TTACGCTATG CGCGTGCAGC TCTTGCAACT GGCTTGATGA GAGACACTGC	12660
TTACCTATCA ATGGGTAGTG TTTTCGATGGG GATTGGTGGT TCTATTGTAA ATCCGGATTT	12720
CTTCCAAGAA TACTTAGGAA TGCGAAATGA ATCGGTAGAT ATGACGGAGT TCACGCGCCG	12780
TATGGACCGT GGTATTTACG ACCCTGAAGA GTTCGAACGT GCGCTCAAAT GGGTGAAAGA	12840
AAACGTAAAA GAAGGATTCG ACCATAACCG TGAAGACCTT GTTTTAAGCC GTGAAGAAAA	12900
AGATAGACAA TGGGAATTTG TTATTAAGAT GTTCATGATT GGACGTGACT TAATGGTTGG	12960
TAACCCAAGA CTTGCTGAAC TTGGTTTTGA GGAAGAAGCG GTTGGTCACC ATGCTTTAGT	13020
AGCTGGTTTC CAAGGTCAAC GTCAGTGGAC AGACCATTTT CCAAATGGGG ACTTTATGGA	13080
AACTTTCCTC AATACTCAGT TTGACTGGAA TGGTATTCGA AAACCATTTG TATTTGCGAC	13140
AGAGAATGAT TCACTAAATG GTGTGTCTAT GCTCTTTAAT TATCTATTAA CAAATACTCC	13200
ACAAATCTTT GCTGATGTGC GTACTTATTG GAGCCCAGAG GCTGTTAAAC GTGTAACGGG	13260
ACATACTTTA GAGGGTCGTG CTGCAGCTGG CTTCTTACAT CTAATCAACT CTGGTTCTTG	13320
TACATTGGAT GGTACAGGTC AAGCTACTCG AGATGGCAAA CCTATTATGA AACCATTCTG	13380
GGAGTTGGAA GAAAGTGAAG TGCAGGCTAT GCTTGAAAAT ACAGACTTCC CACCAGCAAA	13440
CCGCGAATAC TTCCGTGGAG GAGGATTCTC AACTCGTTTC TTGACGAAGG GGGATATGCC	13500
AGTAACAATG GTACGTCTCA ATCTTCTAAA AGGGGTGGT CCAGTGCTAC AAATTGCAGA	13560
AGGTTACACA CTTGAACTTC CTGAAGATGT TCACCATACT TTAGATAATC GTACAGATCC	13620
AGGATGGCCA ACTACTTGGT TTGCTCCACG TTTGACAGGA AAAGGTGCTT TCAAGTCTGT	13680
CTATGACGTC ATGAATAATT GGGGAGCTAA TCACGGAGCC ATAACATATG GACACATTGG	13740
AGCAGACTTG ATTACCTTGG CTTCTATGTT GAGAATTCCT GTCAATATGC ATAATGTACC	13800
TGAGGAAGAT ATCTTTAGAC CTAAAAATTG GTCCTTATTT GGAACAGAAG ATCTAGAATC	13860
AGCAGACTAT CGTGCATGTC AGTTGTTGGG GCCACTACAT AAATAAACT TGTTTATATA	13920
GGAGGTGAAC TTACGTCCCT CCTATCCTTT TAAAAAGATT TGTAAACAA TTCACAAATA	13980
ATTGAAAACG AATACAAAAA GTAATATAAT GATGTTAAAT AGATAGCGCG GAGGCGCAGG	14040
AGGAAAATTA TATGGCTATA TTTTATGTTC CGGCAGTCAA CCTTATTGGA AAAGGTGTTG	14100
TAAATGAAGT GGGTCCTTAT ATCAAGGAAC TTGGCTATAA AAAGGCACTT TTGGTGACAG	14160
ATAAGTACAT CGAAGGCAGT GATATTTTAC CTAAGACTTT AAAACCACTG GATACAGAAG	14220
GAATCGAATA T	14231

(2) INFORMATION FOR SEQ ID NO: 82:

(i) SEQUENCE CHARACTERISTICS:

651

(A) LENGTH: 16995 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 82:

AGTTCTCTTA ACTTTTTTAG GATGGCATT CCGCTCTCA GGTACTCATT TTCTGCTgAA	60
GACGTTCTAA TTCTGTCCTC TCTTCAGGTC TCGTTTTTGG CTTACGTCCC ATTTTAGGTA	120
CTCTCCCTCT TGTTTTCTCA ACAATAGTAT ACCCGTTTTT CCTGTATTGT GCTAGCCAGT	180
TAAGAAGTAT CGTACGACTT GGGAGACCGT ATTCAAGAGA AACTCTATCT TTAGTCCAGC	240
CTTCATGTCA GACTTTATTA CTCATTTCTT GTTTTAAATC AGGAGAATAG TAACGATTTT	300
TTCCTTTTTT GACGAAC TCT ATTCCGTAAC GATCAATCAA TTTAATCATG TACCTAATAT	360
TAGAATTGCT TATCCCAAAT TTATTTGAAA GCTTCTCTAA GCTATATCCT TGTTTTCTAA	420
GTTCATAGAT CTGAACTTTA TCATCATAAG TTAGTTTCAT AATAAAAACA CCCCAAAAGT	480
TAGATTTTTT CTGTCTAACT TTTGGGGTGT AGTTCATGTA CACCTGATAT GATGCGTTTT	540
ATAATTTTTA AGCCTTTTTG CCCAGCCTCG TCAAAAGTAA TGTTTTGACA CAAAATCTGT	600
GACAAACTT TAGTTTTAAA GGTTTTTAAC TTTGTATATA CTAGTTTTAA GAAAAGGAGG	660
ATGATCTAAT GGAAGAAAAA GTATCATTGA AAGTCAGGGT TCAAAAAC TA GGGACATCGC	720
TTTCAAATAT GGTATGCCC AATATTGGAG CATTTATTGC TTGGGGAGTA TTGACTGCCC	780
TCTTTATCGC TGATGGCTAT CTGCCAAATG AACAGTTAGC TACTGTTGTT GGTCTATGT	840
TAACGTATTT ATTGCCAATC CTGATTGGTT ACACAGGTGG ATATATGATC CATGGCCAAC	900
GTGGTGCCGT TGTAGGAGCT ATTGCTACTG TTGGTGCAAT CACAGGTTCT AGTGTTCCCTA	960
TGTTTATCGG AGCTATGGTA ATGGGCCCCAC TGGGAGGATG GACTATCAAG AAATTTGATG	1020
AGAAGTTCCA GGAAAAAATT CGTCCCGGAT TTGAAATGTT AGTTAATAAC TTCTCAGCTG	1080
GTCTCGTTGG TTTTGCATTA TTGCTTTTGG CTTTCTACGC AATCGGTCCA GTCGTATCGA	1140
CTCTTACTGG AGCTGTTGGG AATGGTGTG AGGCTATTGT CAATGCTCGC CTCCTTCCTA	1200
TGGCTAATAT TATCATCGAA CCGGCTAAAG TCCTTTTCCT CAATAATGCC CTCAATCATG	1260
GCATTTTTAC TCCTCTGGGA GTAGAACAGG TAGCTCAAGC TGGTAAGTCA ATTCTCTTCC	1320
TATTGGAAGC TAATCCTGGA CCAGGTCTGG GAATTCTATT AGCTTATGCT GTATTCCGTA	1380
AAGGTTCTGC TAAATCTTCT TCTTGGGGGG CAATGGTTAT TCATTTCTTC GGAGGGATTC	1440
ATGAAATTTA CTTTCCTTAT GTTATGATGA AGCCTACTCT ATTTT TAGCT GCTATGGCAG	1500

652

GAGGTATCTC	TGGAAC TTTT	ACTTTTCAAC	TCTTAGACGC	TGGTCTTAAA	TCTCCAGCTT	1560
CACCAGGTTT	TATTATTGCG	ATTATAGCTA	CGGCGCCAAA	AGGTGTTTGG	CCCCATCTAA	1620
ATGTTCTTTT	AGGTGTTTTA	GTGGCAGCAG	TTGTTTCTTT	CCTTG TAGCA	GCCCTTATTC	1680
TTCATGCAGA	CAAGTCAACT	GAGGATTTCG	TCGAAGCTGC	TCAGGCGGCT	ACCCAAGCAG	1740
CTAAGGCTCA	GTCTAAAGGT	CAGTTAGTAT	CAACTTCTGT	TGATGCAGTT	GTTTCGACAG	1800
ACTCAGTGGA	AAAAATCATT	TTCGCCTGCG	ATGCTGGTAT	GGGAAGCTCT	GCTATGGGAG	1860
CTAGTATTCT	TCGAGATAAG	GTTAAAAAAG	CAGGTCTAGA	GATTCCAGTA	TCTAATCAGG	1920
CAATCTCAAA	TTTGCTTGAT	ACACCAAAAA	CATTAATTGT	TACTCAGGAA	GAAGTGACAC	1980
CAAGAGCTAA	AGACAAGAGT	CCAAGTGCTA	TTCATGTTTC	TGTTGATAAT	TTCTTAGCGT	2040
CCTCTCGTTA	TGATGAAATT	G TAGCTTCAT	TAACAGGAGC	TTCTCCAATA	GCAGAAATTG	2100
AAGGAGATAT	ACCAACTTCA	GCACCAGTAG	ATAGTCAGGA	AAGTGACCTT	AACCATATTG	2160
ATGCTGTAGT	AGTTGCTTAT	GGTAAAGCAC	AGGGAAGTGC	AACTATGGGC	TGTGAAACGA	2220
TTCGGGCTAT	TTTTAGAAAC	AAGAATATTC	GTATTCCAGT	TTCTACTGCC	AAAATTTTCA	2280
AATTAGGTGA	ATTTAATTCT	AAAAACATAA	TGATTGTAAC	AACTATTTCT	TTACAGGCAG	2340
AAGTGCAGCA	AGCAGCACCG	AATTCTCAAT	TTCTTATTGT	GGATAGTTTA	GTAACAACAC	2400
CAGAATATGA	CAAAATGGCT	GCTAGAATGT	ACAAATAGAA	CTAGAGGTTT	CTAAATTACG	2460
AATGCTATTA	ACCAAACGAG	AAGAACAATT	ATTGAAGGCT	TTCTTACATG	TAGGGAAGCT	2520
TTCAATGCAA	GATATGACTG	AAATCTTACA	GGTTTCATCT	AGAACAATTT	ATCGAACTTT	2580
ATCAGATTTG	ACAGATAGCA	TGGAGCAATA	TGGAATCGAA	ATAACGAAGC	ATGGGAAATA	2640
CTATATTTTG	ACTGGAGAGT	TGGATGATTT	GCCGACAGAA	CTTGAAGTGT	TAGTTGAGTA	2700
TAGTCCCCAA	GAAAGACAAG	AGTTGATTAC	CTATCGCCTT	CTGACTGAGA	GTGGTTTTGT	2760
CACCAATGAA	GCATTGCAAG	AGTGCACGAA	AGTCAGTAAT	GTAAGTATTA	TTCAGGATAT	2820
TTCAGATATT	GATAAGCGTC	TTTTAGACTT	TGATCTGAAA	ATTGAACGAC	AAAAAGGTTA	2880
TCGGATTTCT	GGTGATTCAG	TTGGTAAGAG	AAGATTTTTG	GCTATTTTAC	TGACAAACTG	2940
TATCTCAGTA	GCAGATTTTT	CAACCGGTAA	TTTTGGGAGC	TTTGATATTT	TAGAAGCAGA	3000
TAGAAGTGGG	CTGGCCAGTC	AGATTGTTAA	TAAGCAACTG	TCAGGTTTTT	CAGATATGGA	3060
TGCTAGGATG	AAGATGTTTT	TTGCGATCTT	GTTATCTCTT	ATAGGTCAGG	AGCAAAACAT	3120
TGAAAATTCA	CCTAATACTA	GTAAGCAGGC	TTTGGAATTT	TCTCAAAAAA	TTTTTCAAGC	3180
TTACTCTAAG	CAGACTGCAC	AATTTTATAG	TATTCAGGAA	ATTATCTATT	TTGCGAGCAT	3240
CTTGATGAA	TTAATCATTA	AACGTCAGGA	CAATCCGCTC	TTTACGGAGA	AATTTGATGG	3300

653

TGAATTTTTC	TACAATATTT	CAAATCTGAT	TGATACGGTT	TCCATGTATA	CCAAGATTGA	3360
CTTTTTTAAG	GACAAGGTTT	TATTCAATTT	TCTTTTCCAT	CATATTCGGC	TCAGTTTAGG	3420
CGTCCCTATC	CTTTTTCAGG	GTGAAAATTT	GCCAGAATCT	ATCCAGATTT	TAGTTGAAAG	3480
GAATAAATTT	CTTTATACAG	TCATCAGTCT	TTTAGTGAAT	GATATTTTTC	CGAAATATCT	3540
TCATACAGAG	TATGAGTATG	GCATGATTGC	CCTACATTTT	ATCTCTAGCT	TAGGCCGTAG	3600
TCCAGAGATT	TATCCAGTCC	GTGTTTTGCT	TTTAACGGAT	GAACGTCGGG	TCACTAGAGA	3660
TTTATTAGTC	AGTAAAATTA	AGAGTGTTGC	TCCTTTTGTA	GAGTTGATAG	ATATTCAATC	3720
TCTAGTAGAT	TACCACAGTA	TTGATCTCAG	TCAGTATGAT	TATATTTTAT	CTACCAAGCC	3780
GCTGACTAAT	CAGGAAATCG	ATGTAATTTT	TAGTTTTCCA	ACCGTCAAAG	AATTGCTTGA	3840
ATTACAGGAA	CGACTTCAGT	ATGTACAGGC	ACATCGTACA	ATTGTGCGCG	GTGATGCTAT	3900
CGCTCCAGAG	AAAAGTTATG	ACTTGCAAGA	TTATTTAATA	TCTAGTAGTC	AGCTTTTGAG	3960
TCAATTCGAG	TTGGTTCAAT	TGGAGAATAA	TCAATCATTT	GAGCACACGG	TAGAACAAAT	4020
CATCCAATAT	CAGAAGAATG	TGAGTGACAG	AGCTTACCTA	ACAAGAAAAT	TGTTATCTCA	4080
CTTCCAGAAT	AGTCCTATGG	CTATTCCTAA	TACTGGTCTG	GTGCTTTTAC	ATAGTCAGTC	4140
TAGCAAAGTA	ACAACAAATA	GTTTTACTAT	GTTTGAAGTC	AAACTACCTA	TCTCCGCATT	4200
GTCAATGAAA	CGAGAGGAAG	AAGAGGTCAA	AAGGTGTCTG	CTAATGCTAA	TGTCTAAAGA	4260
AGCTAGCGAG	GAAGCTAGAG	ATTTAATGAC	AGCTATTAGT	CAGTCGATTA	TTGAAAATCA	4320
TCTTTATACA	GAGATTTACA	AGACGGGAAA	TCAATCCATT	ATTTATCAGA	TGCTAAATAC	4380
TATTTTTTAAC	GAAAAAATTA	AGAAATTGGA	GAACATAAT	GAAACTTGAA	AAACATTTGA	4440
TTAAGCTTAA	TAAACAATTT	TCTAACAAGG	AGGAAGCTAT	TTGTTATTGT	GGGCAAGTTC	4500
TTTATGAGGG	TGGATATGTT	AATGAAGACT	ATATTGAAGC	CATGATTGAG	CGAGATAAAG	4560
AGCTATCTGT	TTACATGGGT	AACTTTATCG	CCATACCGCA	TGGAACAGAT	GCAGCAAAAA	4620
ATGATGTCCT	CAAGTCTGGT	ATTACAGTCG	TTCAAGTCCC	TAGAGGGGTT	GATTTTGGGA	4680
ATGTATCTAA	CCCTCAAGTG	GCAACGGTTC	TTTTTGGTAT	TGCTGGTATT	GGTAATGAAC	4740
ACTTAGAAAT	TATTCAGAAA	ATTTCTATCT	TCTGTGCAGA	TGTAGATAAT	GTTCTTAAAC	4800
TAGCAGATGC	TCAGTCAAAA	GAGGAAGTAT	TGCGCTTATT	TGATGCTGTT	GAATAATTGA	4860
ATTTAGTCAT	TTGTCATCTA	GTATATATGT	CCCTCAAATA	GGAAAAGGAG	AAATTGAATG	4920
AAACATTCTG	TTCATTTTGG	TGCCGGTAAT	ATCGGTCGTG	GTTTTATAGG	TGAAATTCTA	4980
TTTAAAAATG	GTTTCCATAT	TGATTTTGTG	GATGTCAATA	ATCAGATAAT	TCATGCTCTG	5040

654

AATGAAAAGG	GCAAGTATGA	AATTGAAATT	GCACAGAAAG	GACAGTCTCG	TATAGAAGTA	5100
ACTAATGTGG	CTGGCATTAA	TAGCAAAGAA	CATCCTGAGC	AAGTCATTGA	AGCGATTCAA	5160
AAGACGGATA	TTATTACTAC	TGCAATCGGA	CCTAATATAC	TCCCTTTTAT	CGCCGAACTT	5220
CTAGCCAAAG	GAATCGAAGC	TCGCCGAGTT	GCAGGAAATA	CACAGGCATT	GGATGTTATG	5280
GCCTGTGAAA	ATATGATTGG	CGGGTCTCAA	TTTCTTTATC	AAGAAGTCAA	GAAATATTTA	5340
AGTCCGGAAG	GTTTGACATT	TGCTGATAAC	TACATAGGTT	TTCCAAATGC	TGCAGTAGAC	5400
AGGATTGTTC	CAGCACAAAG	TCACGAAGAT	TCCCTTTTTG	TTGTGGTCGA	GCCCTTTAAT	5460
GAATGGGTCG	TGGAAACCAA	GCGTCTTAAA	AATCCAGATT	TACGTCTAAA	AGATGTGCAT	5520
TATGAAGAAG	ATTTAGAACC	CTTTATTGAG	CGAAAACTTT	TTTCAGTCAA	TTCTGGACAT	5580
GCAACTTCAG	CTTACATTGG	TGCGCATTAT	GGTGCCAAGA	CAATTTTGGA	AGCTCTTCAA	5640
AATCCTAATA	TTAAATCTCG	GATTGAATCT	GTATTAGCTG	AAATTCGGAG	TCTCTTGATT	5700
GCCAAATGGA	ACTTTGATAA	AAAAGAATTG	GAGAATTATC	ACAAAGTCAT	TATAGAACGA	5760
CTTGAAAACC	CTTTCATAGT	GGACGAGGTT	AGTCGCGTAG	CTCGTACTCC	AATCCGAAAA	5820
TTAGGCTATA	ATGAACGATT	CATCCGGCCG	ATACGTGAAT	TGAAAGAACT	CAGTTTGTCA	5880
TATAAAAACC	TACTTAAAC	AGTTGGCTAT	GTCTTTGACT	ATCGCGATGT	AAATGATGAA	5940
GAAAGTATTC	GATTAGGTGA	ATTGTTGGCT	AAACAATCAG	TCAAAGATGT	TGTTATACAA	6000
GTTACAGGTT	TAGACGACCA	AGAATTGATT	GAGCAAATTG	TAGAGTATAT	TTAATCTTTT	6060
TCGAAAATCT	CTTCAAATCA	GGTTAGCATC	GCTTTGTCTT	AGGCATATGT	TGTTCTATCT	6120
ACAACCTCAA	AGCAGTGCTT	TGAGCTGACT	CCGTCAGTCT	TATCTGCAAT	CTCAAAACAC	6180
TGTTTGAGTT	ATCTGCGGTA	ATCTTTCTAG	CTTGTCCTTG	ATTTTGTGTTG	TTATTTATAA	6240
GGTAAAAGAA	GCTGGACAAA	AAGTCTTCAA	AATCGGGAAA	AGGCAGCCTA	TCGGGTGTTC	6300
AAAAATCTTG	ATAGGATGTC	CTTTATTATG	GAAAGCCTTA	TTGGATTTTC	TCCTCAGATT	6360
GAGTTTTTGA	TCAGCTTTAT	GAGATAGGTC	TTGCTAGAGA	TGTAGCCCAT	CATGTTATTT	6420
TTATGGACAG	TGGGAAAATT	GTTGAAAAAA	ATAATGCCCA	TCAATTCTTT	AGTCGTCCAA	6480
GAGAAGAACG	AACCAAGCAA	TTTTGGAACG	AATTCTTTTCG	AATGCGATCT	ATATAGTAAA	6540
ATGAAACAAG	AACAGGACAA	ATCGATCAGG	ACAGTCAAAT	CGATTTCTAA	AAATGTTTTA	6600
GAAGTAGAGG	TGTACTATTC	TAGTTTCAAT	CTACTATATA	ACTGAAAAAT	TAGATAAATT	6660
AGTTTTGGAA	AATGACTAAC	CAAAAGATAT	CCAAAGTAGT	CTAAAATTGT	CTATACTTTA	6720
TGAGTGTTTT	AGTTAGGAAA	AAGGCTTGTT	GTCTATAATT	GTCTGCATTA	GTCTAGATTT	6780
TATTTATAGA	AAATGTTATA	ATAGACTGTA	TTTAAAAAAT	TTTAAGGAGA	AATGACAGAA	6840

655

TGTCTGTATC	ATTTGAAAAC	AAAGAAACAA	ACCGTGGTGT	CTTGACTTTC	ACTATCTCTC	6900
AAGACCAAAT	CAAACCAGAA	TTGGACCGTG	TCTTCAAGTC	AGTGAAGAAA	TCTCTTAATG	6960
TTCCAGGTTT	CCGTAAAGGT	CACCTTCCAC	GCCCTATCTT	CGACCAAAAA	TTTGGTGAAG	7020
AAGCTCTTTA	TCAAGATGCA	ATGAACGCAC	TTTTGCCAAA	CGCTTATGAA	GCAGCTGTAA	7080
AAGAAGCTGG	TCTTGAAGTG	GTTGCCCAAC	CAAAAATTGA	CGTAACTTCA	ATGGAAAAAG	7140
GTCAAGACTG	GGTTATCACT	GCTGAAGTCG	TTACAAAACC	TGAAGTAAAA	TTGGGTGACT	7200
ACAAAAACCT	TGAAGTATCA	GTTGATGTAG	AAAAAGAAGT	AACTGACGCT	GATGTCGAAG	7260
AGCGTATCGA	ACGCGAACGC	AACAACCTGG	CTGAATTGGT	TATCAAGGAA	GCTGCTGCTG	7320
AAAACGGCGA	CACTGTTGTG	ATCGACTTCG	TTGGTTCTAT	CGACGGTGTT	GAATTTGACG	7380
GTGGAAAAGG	TGAAAAC TTC	TCAC TTGGAC	TTGGTTCAGG	TCAATTCATC	CCTGGTTTCG	7440
AAGACCAATT	GGTAGGTCAC	TCAGCTGGCG	AAACCGTTGA	TGTTATCGTA	ACATTCCCAG	7500
AAGACTACCA	AGCAGAAGAC	CTTGCAGGTA	AAGAAGCTAA	ATTCGTGACA	ACTATCCACG	7560
AAGTAAAAGC	TAAAGAAGTT	CCGGCTCTTG	ACGATGAACT	TGCAAAAGAC	ATTGATGAAG	7620
AAGTTGAAAC	ACTTGCTGAC	TTGAAAGAAA	AATACAGCAA	AGAATTGGCT	GCTGCTAAAG	7680
AAGAAGCTTA	CAAAGATGCA	GTTGAAGGTG	CAGCAATTGA	TACAGCTGTA	GAAAATGCTG	7740
AAATCGTAGA	ACTTCCAGAA	GAAATGATCC	ATGAAGAAGT	TCACCGTTCA	GTAAATGAAT	7800
TCCTTGGGAA	TTTGCAACGT	CAAGGGATCA	ACCCTGACAT	GTACTTCCAA	ATCACTGGAA	7860
CTACTCAAGA	AGACCTTCAC	AACCAATACC	AAGCAGAAGC	TGAGTCACGT	ACTAAGACTA	7920
ACCTTGTTAT	CGAAGCAGTT	GCCAAAGCTG	AAGGATTTGA	TGCTTCAGAA	GAAGAAATCC	7980
AAAAAGAAGT	TGAGCAATTG	GCAGCAGACT	ACAACATGGA	AGTTGCACAA	GTTCAAAACT	8040
TGCTTTCAGC	TGACATGTTG	AAACATGATA	TCACTATCAA	AAAAGCTGTT	GAATTGATCA	8100
CAAGCACAGC	AACAGTAAAA	TAATCTTAAT	AAACAGAAAA	CCCACCTGAA	TTGGTGGGTT	8160
TTCTGATGCA	CTATTTTCCA	AAAATCTCTT	TGAGGTCTGT	GTCTGTAATC	CCAATCATGG	8220
CTGGGATGCG	GTCCCAGTTT	TCTTCGGTTA	GGATGTAGGA	TTGTTTCAGAG	GCACTTGATG	8280
TGACTGTTTC	AGAGACAGCT	TGTTGCTTTT	CTTCAACATT	CTCCAGTAGA	TCACTGAAGC	8340
GTTCAATCAG	ATAGGTTTTT	CGGGCAGTTC	CGATGTGTTG	GGTAGCATAG	TCGAAGGCTT	8400
GTAATTCGCC	TAGTAAGATG	AGTTTGCTTT	TGGCACGTGT	AATGGCTGTG	TAGATGAGAT	8460
TTTCGCTCCAG	CATACGTCGG	CTAGCACTAG	TAATCGGTAG	GATGACAACT	GGGAACTCAC	8520
TTCCCTGAGA	CTTATGAATA	CTCATGGCAT	AGGCCAAGCG	AATCTTGTAC	CATTCGTTAC	8580

656

GGGGGTAAGA	GACTTCATTA	CCATCAAAAT	CAATGACAAT	CTCGTCTTGT	TTCGATTCGG	8640
TGTATTTACC	AGGAATCAGG	TCTGTGATAG	CTCCTAAATC	CCCATTAAG	ACATTGATTT	8700
CAGCATCGTT	AACCAAATGA	ATGACCCTGT	CTCTCTTACG	ATAGTGACAC	TGAGGAGCTT	8760
CAAACTGAG	TTGATCTTTT	TGTGGGGGAT	TGAGCAGGTC	TTGCATGAGC	TGATTGATAG	8820
CATCAATCCC	TGCCGTCCCT	CGGTACATAG	GAGCCAGAAC	TTGGATATCA	CGGGCGGGAA	8880
TACCATTTCT	GAGGGCGGCA	CCTAAGATTT	TTTCAATGGT	GGCAGGAATA	TGGCCACTAG	8940
CAATTTCAA	GTAGGAACGG	TCAGCTTTTT	TTTGGGTGAA	ATCAGCTGGC	AAGATGCCCT	9000
GTCGAATCTG	ACTAGCTAGG	GTGACGATGG	TTGATTCTTT	GCTTTGTCGA	TAAATTTTTT	9060
CCAAGCGAGT	CTGAGGAATC	AAAGGAATAT	GAAGTAGATC	CGCTAGAACC	TGTCCAGGAC	9120
TGACAGAAGG	TAGCTGATCA	CTGTACCTA	CGATGAGGAT	CTTACTGTTA	GAAGAGATAT	9180
TGGAGAAGAG	TTGATTGGCC	AGCCAAGTAT	CTACCATAGA	GAATTCATCC	ACGATGATAA	9240
AGTCAGCATC	TAGGTAATCT	TCCAGATGAC	TGGTATCATC	GTCACCTGTC	ATTCCCAAGT	9300
GGCGATGTAT	GGTCGCGCTA	GGCAAACCTG	TCAATTCATT	CATGCGACGA	GCAGCTCGAC	9360
CAGTTGGAGC	AGCAAGAAGA	ATGGGCAGAT	TGCTTTTCTT	CCTGAAGTCA	AGTCCTTCTA	9420
AAAGGGCATA	AACAGCAATG	ATTCCATTGA	TAACAGTTGT	CTTACCAGTA	CCAGGCCCAC	9480
CTGTCAGGAT	AAAGACCTTA	TTCTGGATAG	CATCACAGAT	AGCCTGTTTT	TGAATGTTAT	9540
CATACTCAAT	TCCCAGTTCT	TGCTCGACAG	TAGTGATATG	TTTTTGAATG	GTTTCTAAAT	9600
CATGACTCTT	CTGTTTTTCT	TTTTCAAGGA	TACGAACCAA	GTGACTGCGG	ATGCCTTCTT	9660
CAGCGAAAAA	GAGGCTGTTG	TCAAAGATCT	TGGTATCAAT	CTGCTGAACC	TTGTCTTCTT	9720
CGATCAGGTA	GGAGAGCTCT	TGGGCAACTT	GGCTGGGGTC	TAGTTCCACG	GGACGGGAAG	9780
ACTCAAGGAG	AGTAAGGGTT	TGTTCCAGCA	AATCCCGTGC	TTCAACATAG	GTGTCCCCTG	9840
TTCCATACA	GGCCTGAAAA	AGACTGTGAA	CTAGACCGGC	GCGGAAGCGT	TCAGGAGCCT	9900
GACTTTTCGAT	GCCTAGTTCC	TCAGCTAGTT	GGTCAGCAAT	GGTAAAGCCC	AAACCCTTGA	9960
TATCCTCAAC	CAGCTGGTAG	GGATAATTTT	CAACCACATC	AAGGGTTTCT	TCCTTGTAAG	10020
AGTCTTGAAT	CTGAAAGGCT	AGTTTGTGG	GAATGCCGTA	GTTGGCTAGT	TTGGCCAAAA	10080
TCATCTCCGT	TCCGTAGTTG	AGACGGAGAG	TGGAGACGAA	AGCCTCGCGA	TTTTTGGCAG	10140
AGAGTCCTGC	GATGCCTTCT	AACTTTTCTG	GGTGTGCAA	AATTTTCGTCA	ATGGTATTTT	10200
CGCCATAGGT	ATCCACGATT	TTCTGAGCTG	TCTTGAGACC	AATCCCCTTG	AAATGGCTAC	10260
TTGAAAAGTA	CTTGACCAAG	CCCTTACTAG	TTGGTTTTGC	GCGATCATAA	CGACTGATTT	10320
GCAGTTGTTC	TCCATACTTG	GAGTGCTGGA	CAATTTGCCC	CCAAAAAGTA	TAGTCTTCGC	10380

657

CCTCAATTAC	ATCAGCCATG	GTCCTGTGA	CAATGATTTC	AAAATCATCA	AAATCCTCTG	10440
CGTCCGTATC	GTCGATTCT	AGGAGGAGGA	TGCGATAAAA	ATTGCTGGGA	TTTTCAAAAA	10500
TAATCCGTTC	AATAGTTCCT	GAAAAATAAA	CTTCCATAAA	ATTCCTTTGC	ATGAATAGGT	10560
GAGAGTTGGG	ATTGTTTTTA	TTTTATACTC	TTCGAAAATA	TCTTCAAACC	ACGTCAGCTT	10620
CCATCTGCAA	CCTCAAAACA	GTATTTTGAG	CTGACTTCGT	CAGTTCTATC	CACAACCTCA	10680
AAACACTGTT	TTAAGCAGCC	TACGGCTAGC	TTCCTAGTTT	GTTCTTTGAT	TTTCATTGAG	10740
TATTTGTAAA	TAAACAATCA	CTTCTCACGA	TAGAAGAAGA	GGCTGAGATT	GGTGATTCTC	10800
TGCCTCTTAG	GTTTCTTAAA	ATGTTCCGAT	ACGGGTGATT	GGCCATAAGC	GGAATTTAGC	10860
TTCCCTGTG	ATATCTTTTG	CTTTGAAGGT	ACCTACGTGG	CGGCTGTCGC	TCGAAACCAA	10920
GCGGTCATCT	CCGAGGAGAA	GGTATTCTCC	TTCTGGAACA	GTAAAGCTAA	AGTTGGTGTT	10980
GTAGTTGACA	TCAACTGTGA	AGGCTTGAGC	TTTTTGAGCG	ATACTTCTAA	AGAAAGTTCC	11040
TTTATTTCCCT	TCAAAGCCCT	TGCCTGAGTA	AGTGCTTTGG	AGTTTGTCAT	CCTTGAAGCG	11100
TTTGATATAG	TCTGCTAGAT	AAGGCTCGTC	CGTTTCTTTG	TCATTGATGT	AGAGTTTATC	11160
ATTTTCGTAA	CGAATGGTGT	CGCCAGGCAT	TCCAATCACG	CGCTTGACGA	TGTCCTTATT	11220
GCCATCTTCC	TCATGGGCCA	CCACGATATC	AAAACGGTCA	ATAGGAAGGT	GTTTTACAAC	11280
GAAGAGAATT	TCGCCATCCG	CTAGGGTCGG	ATCCATGGAA	TGTCCTTCTA	CGCGAACATT	11340
GCTCCAAAAA	AAGATACGAC	TTAAAGCTAG	TAATGACAGA	ATTAGGAGGA	ACAATCCCCA	11400
CTCTTTTAAG	AAATTTTAA	ATGAATTCAT	AACTTACCTT	TCTAAGCGTT	TTTTCGCTTT	11460
TTCAGTGTTT	TTAAAGTGCA	ATTTGGCGCA	GAAGCTGAGT	CCCTGCATAC	CATAGGCTTG	11520
CAAAATCTGG	CTAGCCACCT	TGTCAGAAGC	CGTTCAGCT	CCACTTGGGA	GCTGATAACC	11580
CAGTTCTCGT	CCCAAATTTT	CAAGATTTTC	CAGAAAGAGA	TCACGCGCAA	TGACAGAAGA	11640
AACTGCGACA	GACAAGTATT	TGCCCTCAGC	CTTTTCTTCT	AAGCTGATAG	GATTGCTGAA	11700
ACGATTGGCC	TCTTGTGCCA	AGTACTTGTC	ATAATTTTAA	GCACTGGTAA	AGGCATCAAT	11760
CACAATTTTC	TCAGGCTGAA	CACCTTTTTG	AAGGAGGAGA	TAGATAGCCT	GATTATGGAG	11820
GGCAACCTTA	ACCGAAACAG	CGTTGTAGCG	GTCTCCGATG	ACCTCGTTGT	ACTTGCTGGG	11880
TGAGAGAAGG	AGTGCCTGGT	GCTGAATTTT	TTCCTTGAGA	ATAGGAGTAA	TCTGACGGAT	11940
CTTTGGTTCG	GTCAGAGTCT	TAGAATCCCC	CACACCGAGT	TTTCGTAAAA	AGTCGTGCTG	12000
GTCAGGTGTG	ACAAAGGCAG	CCACAACCTGC	AAGCCCACCA	AAGTAGGAAC	CATTTCCCAC	12060
CTCATCTGTC	CCAATTAAAG	GAAGATTTTG	TCCGCTGGTT	TGCTCTACAG	CTTGATAGCC	12120

658

AAAGAACTG	GCGTATTTTT	CAGCCCCTTC	ACCCTGAAGC	AAGATTTTTC	CAGAAGTATA	12180
GATAGAAACC	GTTGCTTGAG	GTAGTTTCAA	AAAGTAGCGG	ATATAGGGAT	TCTTGCTAGG	12240
AGCCAGACTG	GTTTGATAGT	GTTCAAGAAA	AGCCTGAATA	TCCTTTTCGC	TTGGTGTGAG	12300
TGTGATACTT	GCCATAGTTT	CTATTGTACC	ACAAAAGCAG	TAAAATTTGT	AAAACTGAC	12360
AAAATTAGCG	AATTTTGGTA	TAATATCGTG	AGGTGAATTT	TATGGCAAAT	CTAAATCGAT	12420
TCAAATTTAC	ATTCGGGAAA	AAATCGTTAA	CCTTGACAAG	CGAACATGAC	AACCTTTTTA	12480
TGGAGGAAAT	CGCTAAGGTT	GCGACAGAAA	AATACCAAGC	AATTAAAGAA	CAAATGCCTA	12540
GCGCAGATGA	TGAAACAATC	GCTCTTTTGT	TGGCAGTCAA	CTGTTTATCA	ACTCAGCTCA	12600
GCCGTGAGAT	TGAATTTGAC	GATAAGGAGC	AAGAGCTAGA	AGAACTCCGT	CACAAGCTTG	12660
TGACTTGTA	GCAAGAACAG	AGCAAGATTG	AGGATTCCTT	ATGATTTTCAT	TCCTTCTTCT	12720
ATTGGTCTTG	GTTTGGGGAT	TTTATATCGG	CTATCGGAGA	GGCCTGCTCT	TACAGGTTTA	12780
TTACCTGATT	TCAGCCATGG	CATCGGCTTT	TATGGCTGGC	CAGTTTATA	AGGGGCTTGG	12840
AGAGCAATTC	CATTTATTGC	TCCCTTATGC	AAATTCGCAG	GAAGGTCAGG	GGACTTTCTT	12900
TTTCCCATCG	GATCAACTCT	TTCAGCTGGA	TAAGGTCTTT	TATGCAGGTA	TCGGCTACTT	12960
GCTTGATTTT	GGGATTGTCT	ATAGCATTGG	TCGTTTACTT	GGTCTTCTCT	TACACTTGAT	13020
TCCTAGCAAA	AAACTGGGTG	GTAAGTTGTT	CCAAGTTTCA	GCAGGTATCT	TGTCCATGTT	13080
GGTGACCTTA	TTTGTCTTGC	AAATGGCCTT	GACAATCTTG	GCGACCATCC	CCATGGCAGT	13140
TATACAAAAT	CCTCTTGAAA	AGAGTATCGT	CGCAAAACAC	ATCATCCAGA	GCATACCGGT	13200
AACAACCAGT	TGGCTCAAAC	AAATCTGGGT	GACAAATTTA	ATCGGATAAA	AAGGGCAGGA	13260
GTTTTCCTAG	CCCTTTGTTT	ACAGATTTGA	CTCGAATCTA	TCAGAATGTA	AAAAGCTACC	13320
ACACCTAGAC	ATTCAAAGAC	AAGGAAATAA	AGATGAATAA	GAAAATATTA	GAAACATTAG	13380
AGTTCGATAA	GGTCAAGGCC	TTGTTTGAGC	CTCATTTGTT	GACCGAGCAG	GGCTTGGAGC	13440
AATTGAGACA	ACTGGCTCCG	ACTGCCAAAG	CAGATAAAAT	CAAACAGGCT	TTTGCTGAGA	13500
TGAAGGAAAT	GCAGGCTCTT	TTCGTCGAGC	AACCGCATTT	TACTATTCTC	TCAACTAAGG	13560
AAATTGCAGG	AGTCTGCAAG	AGGTGGGAGA	TGGGAGCGGA	TCTCAATATC	GAGGAGTTCC	13620
TACTCTTGAA	ACGCGTGCTT	CTTGCCAGCC	GAGAACTTCA	AAATTTTAC	ACCAATCTGG	13680
AAAATGTCAG	CTTGGAAGAA	TTAGCCCTTT	GGTTTGAGAA	ATTACATGAT	TTTCCGCAAT	13740
TACAAGGAAA	TCTTCAGGCC	TTTAATGATG	CGGGTTTCAT	TGAAAATTTT	GCCAGTGAAG	13800
AATTGGCGCG	AATCCGTCGA	AAAATACATG	ATAGCGAGAG	TCAGGTACGC	GATGTTTTAC	13860
AAGACTTGCT	CAAGCAAAAA	GCGCAGCTGT	TGACGGAAGG	AATTGTTGCT	AGCAGAAATG	13920

659

GCCGTCAGGT	TTTACCAGTC	AAAAACACCT	ACCGCAATAA	GATTGCAGGT	GTCGTTTCATG	13980
ATATTTCTGC	TAGTGGAAC	ACCGTCTATA	TCGAACCCCG	TGAGGTAGTC	AAACTGAGCG	14040
AAGAAATTGC	TAGTCTGCGA	GCAGATGAGC	GCTATGAAAT	GCTTCGCATT	CTCCAAGAAA	14100
TTTCTGAGCG	TGTCCGCCCT	CATGCGGCTG	AGATTGCTAA	TGACGCTTGG	ATTATCGGTC	14160
ATCTGGACTT	GATTCGTGCC	AAGGTTTCGAT	TTATCCAAGA	AAGACAAGCA	GTCGTGCCTC	14220
AGCTGTCAGA	AAATCAAGAG	ATTCAACTGC	TCCATGTCTG	CCATCCTTTG	GTCAAAAATG	14280
CCGTCGCAAA	TGATGTCTAT	TTTGGTCAAG	ATTTAACAGC	TATTGTCATT	ACAGGTCCCA	14340
ATACAGGTGG	GAAGACCATC	ATGCTCAAAA	CTCTGGGCTT	GACACAGGTC	ATGGCCCAGT	14400
CAGGATTGCC	GATTTTAGCA	GACAAGGGAA	GTCGTGTTGG	TATTTTTGAA	GAAATCTTTG	14460
CTGATATTGG	AGATGAGCAG	TCTATTGAGC	AGAGCTTGTC	TACCTTCTCT	AGTCATATGA	14520
CCAATATCGT	GGATATTCTT	GGCAAGGTCA	ACCAACATTC	ACTCTTACTT	TTGGATGAGT	14580
TGGGGGCTGG	TACTGATCCC	CAAGAGGGAG	CAGCCCTTGC	CATGGCTATT	CTGGAGGACC	14640
TTGCGCTGCG	TCAAATCAAG	ACCATGGCGA	CGACCCACTA	TCCAGAACTC	AAGGCCTACG	14700
GTATTGAGAC	AGCCTTTGTG	CAAAATGCCA	GTATGGAGTT	TGATACTGCA	ACTCTTCGCC	14760
CGACCTATCG	CTTTATGCAG	GGTGTTCCTG	GCCGAAGTAA	TGCCTTTGAA	ATTGCCAAAC	14820
GTCTAGGCCT	ATCTGAAGTT	ATCGTAGGAG	ATGCCAGTCA	GCAGATCGAT	CAGGACAATG	14880
ACGTCAATCG	TATCATTGAG	CAATTAGAAG	AGCAGACGCT	GGAAAGCCGC	AAACGTTTGG	14940
ACAATATCCG	TGAGGTGGAG	CAAGAAAATC	TCAAGATGAA	CCGTGCGCTA	AAAAAACTCT	15000
ACAACGAGCT	TAATCGTGAA	AAGGAAACCG	AGCTTAACAA	GGCGCGTGAA	CAGGCTGCTG	15060
AGATTGTGGA	TATGGCCCTA	AGTGAAAGTG	ACCAGATTCT	CAAAAATCTC	CACAGTAAAT	15120
CCCAACTCAA	GCCCCACGAA	ATCATTGAAG	CCAAGGCCAA	GTTGAAAAAA	TTGGCTCCTG	15180
AAAAAGTGGA	CTTGTCTAAA	AATAAGGTCC	TTCAAAAGGC	CAAGAAAAAA	CGAGCTCCAA	15240
AGGTGGGAGA	TGATATCGTG	GTTCTCAGTT	ATGGTCAGCG	TGGTACCTTG	ACCAGTCAAC	15300
TCAAGGACGG	TCGCTGGGAA	GCCCAAGTTG	GCTTGATTAA	GATGACCTTG	GAAGAGAAAG	15360
AGTTTGATCT	TGTTCAAGCC	CAGCAAGAAA	AACCAGTCAA	GAAGAAACAG	GTCAATGTTG	15420
TGAAACGAAC	TTCTGGGCGA	GGACCTCAAG	CTAGACTGGA	TCTTCGAGGC	AAGCGCTATG	15480
AAGAAGCCAT	GAATGAGCTA	GATACCTTCA	TCGACCAAGC	CTTGCTTAAC	AATATGGCTC	15540
AAGTTGATAT	CATCCATGGT	ATCGGAACAG	GAGTCATCCG	TGAAGGAGTT	ACCAAATACT	15600
TGCAAAGAAA	CAAACATGTC	AAGAGTTTCG	GCTATGCCCC	ACAAAATGCT	GGAGGCAGTG	15660

660

GTGCGACTAT	TGTCACTTTT	AAAGGATAGC	AGTATTCTGG	ACTTTATAAA	GTAAAAACTG	15720
TTGAACTAAT	TTTTACTAAT	AAACACATTG	ACAAAAGCCA	ACATTTTTTTG	TAAAATTAGA	15780
ATCAATTAAA	TACCAACACC	GAATGAAGTT	TAATAGAAGT	GGGGAATCGT	TTGATTTTCC	15840
ATGACTGTAA	ATGGACGGAA	CTCTGGAGAG	ACCGTAAAGG	CACCGAAGGG	CAAGGCAGGC	15900
AACTGCTCAA	ACTCTCAGGT	AAAAGGACAG	AGCTAGGATA	GACCGCTTTT	TAGCATTTAT	15960
CTAAGCATTC	CAGAGTACAT	GATCTTGCA	TGTGCTCTTT	CTTTTGGGGT	TGAAACGATA	16020
GGAGAAGGAA	ATGTTAGAAT	TGCTTAAATC	AATCGATGCT	TTTGCTTGGG	GACCGCCCCT	16080
CTTGATTTTA	TTGGTCGGAA	CAGGGATTTA	CCTAACTATT	CGGCTAGGAC	TCTTGCAGGT	16140
TTTGCGTCTA	CCCAAGGCCT	TTCAGCTTAT	TTTTATCCAG	GATAAGGGAC	ATGGTGATGT	16200
ATCCAGTTTT	GCAGCTCTGT	GTACAGCCTT	GGCATCAACT	GTTGGAACAG	GAAATATCAT	16260
AGGAGTTGCG	ACGGCTATCA	AGGTGGTGG	ACCAGGAGCT	CTATTTTGGA	TGTGGATGGC	16320
GGCTTTCTTT	GGAATGGCTA	CCAAGTATGC	GGAAGGACTC	TTGGCCATCA	AATACCGCAC	16380
CAAGGACGAC	CATGGTGCAG	TAGCGGGAGG	TCCCATGCAT	TATATCCTTC	TAGGGATGGG	16440
AGAAAAGTGG	CGACCACTTG	CTGTTTTGTT	TGCAGTAGCA	GGAGTATTGG	TTGCTCTCTT	16500
GGGAATCGGA	ACCTTCACCC	AAGTCAACTC	GATTGCAGAA	TCTATCCAAA	ATACAACGAC	16560
GATTTCGCCA	GCCATCACAG	CTCTCGTCTT	GTCTGTCTTT	GTAGCGATTG	CAGTCTTTGG	16620
TGGACTCAAG	TCTATTTCTA	AGGTTTCAAC	TACTGTTGTT	CCTTTTATGG	CCATCATTTA	16680
TATCTTAGGA	ACTCTTACAG	TTATTTTCTT	TAATATCGGA	AAAATCCCCTG	GCACAATCGC	16740
TTTAGTCTTT	ACCTCAGCTT	TTAGTCCCCT	TGCTGCGGTA	GGTGGATTTG	CTGGTGCTAG	16800
CGTTCGGATG	GCTATTCAAA	ATGGTGTGGC	GCGTGGTGTG	TTCTCAAACG	AATCTGGTCT	16860
GGGTTCTGCT	CCTATTGCAG	CTGCAGCTGC	CAAGACAAAT	GAACCAGTAG	AGCAAGGTTT	16920
GATTTCCATG	ACAGGAACCT	TTATTGATAC	CCTCATCATT	TGTACTCTAA	CTGGTTTGAC	16980
CATCTTGGTA	ACTGG					16995

(2) INFORMATION FOR SEQ ID NO: 83:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 28473 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 83:

CCGGGGCTTT	TGTAGTATAA	TAGAGATACG	TTTTGAAAGT	AGGAGGTATC	TATGGACTTA	60
------------	------------	------------	------------	------------	------------	----

661

ACTAAGCGCT	TTAATAAACA	GTTAGATAAA	ATTCAAGTTT	CGTTGATTCG	TCAGTTTGAC	120
CAGGCTATTT	CGGAGATTCC	TGGGGTCTTG	CGTTTGACCT	TGGGGGAACC	TGATTTTACA	180
ACGCCAGACC	ATGTCAAGGA	GGCGGGCAAG	CGAGCGATTG	ATCAGAACCA	ATCCTACTAT	240
ACAGGGATGA	GTGGTCTGCT	GACTCTACGT	CAGGCAGCCA	GTGACTTTGT	TAAGGAAAAG	300
TACCAACTGG	ACTATGCTCC	TGAAAATGAA	ATCTTGGTTA	CAATTGGGGC	GACAGAGGCT	360
TTATCTGCGA	CTTTGACGGC	TATTTTGGAA	GAGGGAGACA	AGGTACTTTT	GCCAGCTCCT	420
GCTTATCCAG	GCTATGAACC	GATTGTTAAC	TTAGTTGGGG	CAGAAATTGT	TGAGATTGAT	480
ACGACTGAAA	ATGGTTTTGT	CTTGACTCCT	GAGATGTTGG	AGAAGGCCAT	TTTGGAGCAG	540
GGTGATAAGC	TCAAGGCGGT	TATTCTCAAC	TATCCAGCCA	ATCCGACAGG	AATTACCTAC	600
AGTCGAGAGC	AGTTAGAGGC	CTTGGCAGCT	GTTTTACGCA	AGTACGAAAT	TTTTGTTGTC	660
TGTGATGAGG	TTTACTCAGA	ATTGACCTAC	ACAGGCGAAG	CCATGTGTCT	CTAGGAACGA	720
TGTTGAGAGA	CCAGGCTATT	ATTATCAATG	GTTTGTCTAA	ATCGCATGCC	ATGACAGGTT	780
GGCGTTTGGG	GCTGATTTTC	GCTCCTGCGA	CCTTCACAGC	CCAGTTAATC	AAGAGTCACC	840
AGTACTTGGT	CACTGCCGCA	AATACCATGG	CGCAACATGC	TGCGGTAGAA	GCCTTGACGG	900
CTGGTAAAAA	CGATGCGGAC	CCATGAAGAA	GGAATATATC	CAACGTCGGG	ACTATATCAT	960
CGAAAAAATG	ACTGCTCTTG	GTTTTGAGAT	TATCAAACCA	GACGGTGCCT	TCTATATTTT	1020
TGCTAAAATT	CCAGCGGGCT	ACAATCAAGA	CTCCTTTGCT	TTTCTGAAGG	ATTTTGCTCA	1080
GAAGAAGGCC	GTTGCCTTTA	TCCCTGGTGC	AGCCTTTGGA	CGTTACGGGG	AAGGCTACGT	1140
CCGCCTATCT	TATGCAGCCA	GCATGGAGAC	TATCAAAGAA	GCCATGAAAC	GACTTGAGGA	1200
GTACATGAGA	GAAGCATGAT	TCAGTCTATC	ACGAGTCAAG	GCTTGGTGCT	TTACAATCGC	1260
AATTTTCGTG	AGGATGACAA	GCTCGTCAAA	ATTTTACAG	AGCAGGTTGG	CAAACGCATG	1320
TTTTTTGTCA	AACACGCTGG	TCAGTCTAAG	CTGGCGCCTG	TTATTCAGCC	CTTGGTGCTG	1380
GCACGATTTT	TCTTGCGAAT	CAATGATGAC	GGACTCAGTT	ACATCGAAGA	CTATCATGAG	1440
GTCATGACTT	TTCCAAGAT	TAATAGTGAC	CTCTTTGTCA	TGGCCTATGC	GACCTATGTG	1500
GCAGCTCTTG	CAGATGCTAG	TTTGCAGGAC	AATCAGCAGG	ATGCTCCCTT	GTTTGCTTTT	1560
TTGCAAAAGA	CTTTGGAGTT	GATGGAAGCA	GGCTTGGATT	ATCAGGTTTT	GACCAATATT	1620
TTTGAAATTC	AAATTTTGAC	TCGATTTGGA	ATCAGCCTCA	ATTTTAATGA	GTGTGTCTTC	1680
TGCCATCGGG	TTGGTCAGGC	TTTTGACTTT	TCTTCAAAT	ATGGAGCCTG	CCTCTGTCCA	1740
GAGCATTATC	ATGAGGATAA	GAGACGTTGT	CATCTCAATC	CCAATATCCC	CTATCTGCTC	1800

662

AATCAATTTTC	AAGCTATTGA	TTTTGAGACT	TTGGAGACCA	TTTCGCTCAA	GCCTGGAATC	1860
AAGCAAGAGC	TACGCCAATT	TATGGATCAA	TTATATGAAG	AGTACGTTGG	GATTCACCTA	1920
AAATCAAAGA	AATTTATTGA	TTCCCTAGCA	GACTGGGGAC	AATTACTAAA	AGAGGAAAAG	1980
AAATGAAAAA	AATCGCAGTA	GATGCCATGG	GGGGCGATTA	CGCACCTCAG	GCCATTGTTG	2040
AGGGTGTCAA	TCAAGCCCTA	TCTGACTTTT	CAGATATCGA	GGTTCAACTT	TACGGAGATG	2100
AAGCTAAAAT	CAAGCAATAT	CTGACAGCGA	CAGAGCGCGT	CAGCATTATC	CATACGGATG	2160
AGAAGATTGA	TTCGGATGAT	GAACCTACGA	GAGCTATTCT	GAATAAGAAA	AATGCCAGTA	2220
TGGTATTGGC	AGCCAAGGCT	GTCAAAGATG	GTGAAGCAGA	CGCTGTCCTT	TCGGCTGGGA	2280
ATACAGGTGC	CTTGTTGGCA	GCAGGATTCT	TCATCGTGGG	TCGTATCAAG	AATATCGACC	2340
GTCCTGGACT	CATGTCTACC	TTGCCTACCG	TTGATGGAAA	AGGTTTTGAC	ATGCTAGACC	2400
TTGGTGCCAA	TGCAGAAAAT	ACAGCCCAGC	ACCTCCATCA	ATATGCGGTT	CTAGGTTCTT	2460
TCTATGCTAA	AAATGTCCGT	GGCATTGCGC	AACCACGCGT	TGGTTTGCTC	AACAACGGAA	2520
CAGAGAGTAG	CAAGGGCGAC	CCGCTTCGTA	AGGAAACTTA	TGAATTACTG	GCGGCTGATG	2580
AAAGTTTGAA	CTTTATCGGA	AACGTGGAAG	CGCGTGATTT	GATGAATGGC	GTTGCAGATG	2640
TTGTTGTGGC	AGATGGTTTC	ACGGGAAACG	CTGTGCTCAA	ATCCATCGAA	GGGACAGCTA	2700
TGGGAATCAT	GGGCTTGCTC	AAGACAGCTA	TTACAGGTGG	TGGTCTTCGA	GCGAAACTAG	2760
GTGCCCTCCT	TCTCAAGGAC	AGCCTCAGTG	GTTTGAAAAA	ACAGCTCAAT	TATTCAGATG	2820
TTGGTGGAGC	GGTCTTGTTT	GGTGTTAAGG	CACCTGTTGT	CAAGACTCAT	GGCTCAAGCG	2880
ATGCCAAGGC	TGTTTATAGT	ACGATTCGTC	AGATCCGTAC	CATGCTAGAA	ACAGACGTGG	2940
TTGCCCAGAC	TGCGCGTGAA	TTTTCAGGAG	AATAAAAGAG	ATGACAGAAA	AAGAAATTTT	3000
TGACCGTATT	GTGACCATTA	TCCAAGAGCG	ACAGGGAGAG	GACTTTGTCT	TGACAGAATC	3060
CTTGAGTCTG	AAAGACGATT	TGGATGCGGA	TTCTGTTGAC	TTGATGGAGT	TTATCTTGAC	3120
TCTGGAAGAT	GAATTTAGTA	TCGAAATCAG	CGATGAAGAA	ATTGACCAAC	TCCAAAACGT	3180
AGGAGATGTG	GTTAAAATCA	TTCAAGGAAA	ATAGCAATCG	GAGTTCCAAG	TCAACGGAAG	3240
TAGATGGTTT	TTAGAAATGA	GAAATATCGG	ACAAGCTGGT	AAAATCTTGG	CTGACAGTGG	3300
TTATCAAGGG	CTCATGAAGA	TATATCCTCA	AGCACAAACT	CCACGTAAAT	CCAGCAAACCT	3360
CAAGCCGCTA	ACAGTTGAAG	ATAAAGCCTG	TAATCATGCG	CTATCTAAGG	AGATAAGCAA	3420
GGTTGAGAAT	ATCTTTGCCA	AAGTAAAAAC	GTTTAAAATG	TTTTCAACAA	CCTATCGAAA	3480
TCATCGTAAA	CGCTTCGGAT	TACGAATGAA	TTTGATTGCT	GGTATTATCA	ATCATGAACT	3540
AGGATTCTAG	TTTTGCAGGA	AGTCTAATAG	TAAAAAAGTG	ATTAGAAAAC	ATCTTTTTTA	3600

663

AAAATAGAGA	TGATTTTGAA	ACAAAAAAGC	TAATTCAAGA	CGTTTCGATG	CCAATTCAAG	3660
ATTTGGATGA	AAAAAATTAA	TAGATACTGT	TATACTAAAC	TTGTCAAGTT	TGTAACAAGA	3720
CAATATTAA	AAATAAAAAA	GAGGTATTCG	TTATGAATAC	AAAAACGATG	TCACAATTTG	3780
AAATTATGGA	TACTGAGATG	CTTGCTTGCG	TTGAAGGTGG	CGGATGCAAT	TGGGGAGATT	3840
TTGCCAAAGC	AGGTGTTGGA	GGAGGAGCAG	CACGAGGTCT	TCAGCTAGGA	ATTAAAACAA	3900
GAACATGGCA	AGGTGCAGCA	ACTGGTGCTG	TGGGAGGAGC	TATACTTGGA	GGTGTGGCCT	3960
ATGCAGCGAC	ATGTTGGTGG	TAATTATGGA	TTTTAAAAGT	TTTATTATTG	GTTTAGTAGT	4020
TGGTATATTT	GGTCCTTATA	TGGATGATTT	AATTAGAAAA	AAATTTTTTAA	AGTCTTCGGA	4080
GAAGAAAACA	GAAAAATCTG	TTAAAAAATA	ATCAAAACTA	TAAATGATGA	ATCTGAATCA	4140
AAATTATTTT	GCGCATGTAA	AGAGGAGTCT	TATAGTAACG	AGTCAAAAAA	GGAGTAACTA	4200
TGAATCGTAA	TTTAGAACGG	TGTTATCTAT	TCTGACTAGG	AATAGATCAT	ACCAGAGGTA	4260
GCTTAGAAAT	AGCAGAGACA	TTAGAAATTG	AAGTAATAAA	TAGGATGTCG	TAAGTGTTAC	4320
TATCAATGAT	TTATTTGTTT	CAAGCTTGCC	TAGGGTGACA	GTAAAAAATC	AATTCCTTTT	4380
CAATAGCATA	TTTTTAGTGG	GCAGGACTCT	TGTTCTGCCT	ATTTTTTTAT	CCAAAAAGTG	4440
CAGTTGGGAG	GGAGATAGGC	TCATTTGGGA	AGGAAGTCCA	GTTTTTGTTT	AGTGATTGGG	4500
GTAAGATAGT	TGTTATCAGA	TGAGTTAATA	CTCTTCGAAA	ATCAAATTCA	AACCACGTCA	4560
ACGTCGCCTT	GCCGTATATA	TGTGACTGAC	TTCGTCAGTC	CTATCTACAA	CCTCAAAACA	4620
GTGTTTTGAG	CAGCCTACGG	CTAGTTTCCT	AGTTTGCTCT	TTGATTTTCA	TTGAGTATTA	4680
GGGAAAAGGA	GATGAATATG	AAATTTGGGA	AACGTCATTA	TCGTCCGCAG	GTGGATCAGA	4740
TGGACTGCGG	TGTAGCTTCA	TTAGCCATGG	TTTTTGGCTA	CTATGGTAGT	TATTATTTTT	4800
TGGCTCACTT	GCGAGAATTG	GCTAAGACGA	CCATGGATGG	GACGACGGCT	TTGGGCTTGG	4860
TCAAGGTGGC	AGAGGAGATT	GGTTTTGAGA	CGCGAGCCAT	TAAGGCAGAT	ATGACGCTTT	4920
TTGACTTGCC	GGATTTAACT	TTTCCTTTTG	TTGCCCATGT	GCTTAAGGAA	GGGAAATTGC	4980
TCCACTACTA	TGTGGTGACT	GGGCAGGATA	AGGATAGCAT	TCATATTGCC	GATCCAGATC	5040
CCGGGGTGAA	GTTGACTAAA	CTGCCACGTG	AGCGTTTTGA	GGAAGAATGG	ACAGGAGTGA	5100
CTCTTTTTAT	GGCACCTAGT	CCAGACTATA	AGCCTCATAA	GGAACAAAAA	AATGGTCTGC	5160
TCTCTTTTAT	CCCTATATTA	GTGAAGCAGC	GTGGCTTGAT	TGCCAATATC	GTTTTGGCAA	5220
CACTCTTGGT	AACCGTGATT	AACATTGTGG	GTTCTTATTA	TCTGCAGTCT	ATCATTGATA	5280
CCTATGTGCC	AGATCAGATG	CGTTTCGACAC	TAGGGATTAT	TTCTATTGGG	CTAGTCATCG	5340

664

TCTACATCTT	CCAGCAAATC	TTGTCTTACG	CTCAGGAGTA	TCTCTTGCTT	GTTTTGGGGC	5400
AACGCTTGTC	GATTGACGTG	ATTTTGTCCCT	ATATCAAGCA	TGTTTTTCAC	CTCCCTATGT	5460
CCTTCTTTGC	GACACGCAGG	ACAGGGGAGA	TCGTGTCTCG	TTTTACAGAT	GCTAACAGTA	5520
TCATCGATGC	GCTGGCTTCG	ACCATCCTTT	CGATTTTCCT	AGATGTGTCA	ACGGTTGTCA	5580
TTATTTCCCT	TGTTCTATTT	TCACAAAATA	CCAATCTCTT	TTTCATGACT	TTATTGGCGC	5640
TTCCTATCTA	CACAGTGATT	ATCTTTGCCT	TTATGAAGCC	GTTTGAAAAG	ATGAATCGGG	5700
ATACCATGGA	AGCCAATGCG	GTTCTGTCTT	CTTCTATCAT	TGAGGACATC	AACGGTATTG	5760
AGACTATCAA	GTCCTTGACC	AGTGAAAGTC	AGCGTTACCA	AAAAATTGAC	AAGGAATTTG	5820
TGGATTATCT	GAAGAAATCC	TTTACCTATA	GTCGAGCAGA	GAGTCAGCAA	AAGGCTCTGA	5880
AAAAGGTTGC	CCATCTCTTG	CTTAATGTCTG	GCATTCTCTG	GATGGGGGCT	GTTCTGGTCA	5940
TGGATGGCAA	GATGAGTTTG	GGGCAGTTGA	TTACCTATAA	TACCTTGCTG	GTTTACTTTA	6000
CTAATCCTTT	GGAAAATATC	ATCAATCTGC	AAACCAAGCT	TCAGACAGCG	CAGGTGCCA	6060
ATAACCGTCT	AAATGAAGTG	TATCTAGTAG	CTTCTGAGTT	TGAGGAGAAG	AAAACAGTTG	6120
AGGATTTGAG	CTTGATGAAG	GGAGATATGA	CCTTCAAGCA	GGTTCATTAC	AAGTATGGCT	6180
ATGGTCGAGA	TGTCTTATCG	GATATCAATT	TAACCGTTCC	CCAAGGGTCT	AAGGTGGCTT	6240
TTGTGGGGAT	TTCAAGGTCA	GGTAAGACGA	CTTTGGCCAA	GATGATGGTT	AATTTTACG	6300
ACCCAAGTCA	AGGGGAGATT	AGTCTGGGTA	GTGTCAATCT	CAATCAGATT	GATAAAAAAG	6360
CCCTGCGCCA	GTACATCAAC	TATCTGTCTC	AACAGCCCTA	TGTCTTTAAC	GGAACGATTT	6420
TGGAGAATCT	TCTTTTGGA	GCCAAGGAGG	GGACGACACA	GGAAGATATC	TTACGGGCGG	6480
TCGAATTGGC	AGAGATTCTA	GAGGATATCG	AGCGCATGCC	ACTGAATTAC	CAGACAGAAT	6540
TGACTTCGGA	TGGGGCAGGG	ATTTCAAGTG	GTCAACGTCA	GAGAATCGCT	TTGGCGCGTG	6600
CTCTCTTGAC	AGATGCGCCG	GTCTTGATTT	TGGATGAGGC	GAATAGCAGT	TTGGATATTT	6660
TGACAGAGAA	GCGGATTGTC	GATAATCTCA	TTGCTTTGGA	CAAGACCTTG	ATTTTCATTG	6720
CTCACCGCTT	GACTATTGCT	GAGCGGACAG	AGAAGGTAGT	TGTCTTGGAT	CAGGGCAAGA	6780
TTGTCTGAAGA	AGGAAAGCAT	GCTGATTTGC	TTGCACAGGG	TGGCTTTTAC	GCCCATTG	6840
TCAATAGCTA	GAAAGAGGAG	AGGATGAAAC	CAGAATTTTT	AGAAAGTGCG	GAGTTTTATA	6900
ATCGTCGTTA	CCATAATTTT	TCCAGTAGTG	TGATTGTACC	CATGGCCCTT	CTGCTTGTGT	6960
TTTTACTTGG	CTTTGCAACT	GTTGCAGAGA	AGGAGATGAG	TTTGTCCACT	AGAGCTACTG	7020
TCGAACCTAG	TCGTATCCTT	GCAAATATCC	AGTCAACTAG	CAACAATCGT	ATTCTTGTCA	7080
ATCATTTGGA	AGAAAATAAG	CTGGTTAAGA	AGGGGGATCT	TTTGGTTCAA	TACCAAGAAG	7140

665

GGGCAGAGGG	TGTCCAAGCG	GAGTCCTATG	CCAGTCAGTT	GGACATGCTA	AAGGATCAAA	7200
AAAAGCAATT	GGAGTATCTG	CAAAAGAGCC	TGCAAGAAGG	GGAGAACCAC	TTTCCAGAGG	7260
AGGATAAGTT	TGGCTACCAA	GCCACCTTTC	GCGACTACAT	CAGTCAAGCA	GGCAGTCTTA	7320
GGGCTAGTAC	ATCGCAACAA	AATGAGACCA	TCGCGTCCCA	GAATGCAGCA	GCTAGCCAAA	7380
CCCAAGCCGA	AATCGGCAAC	CTCATCAGTC	AAACAGAGGC	TAAAATTCGC	GATTACCAGA	7440
CAGCTAAGTC	AGCTATTGAA	ACAGGTGCTT	CCTTGGCCGG	TCAGAATCTA	GCCTACTCTC	7500
TTTACCAGTC	CTACAAGTCT	CAGGGCGAGG	AAAATCCCCA	AACTAAGGTT	CAGGCAGTTG	7560
CACAGGTTGA	AGCACAGATT	TCTCAGTTAG	AATCTAGTCT	TGCTACTTAC	CGTGTCCAGT	7620
ATGCAGGTTT	AGGTACCCAG	CAAGCCTATG	CGTCAGGGTT	AAGCAGTCAA	TTGGAATCCC	7680
TTAAATCCCA	ACACTTGGCA	AAGGTTGGTC	AGGAATTGAC	CCTTCTAGCC	CAGAAAATTT	7740
TGGAGGCAGA	GTCAGGTAAG	AAGGTACAGG	GAAATCTTTT	AGACAAGGGG	AAAGTTACGG	7800
CGAGTGAGGA	TGGGGTGCTT	CATCTTAATC	CTGAGACCAG	TGATTCTAGC	ATGGTTGCAG	7860
AAGGTGCCCT	ACTAGCCCAA	CTTTATCCAT	CTTTGGAAAAG	AGAAGGGAAA	GCCAAACTCA	7920
CAGCTTATCT	AAGTTCAAAA	TATGTAGCAA	GAATCAAGGT	CGGTGATTCT	GTTCGCTATA	7980
CTACGACTCA	TGATGCCGGG	AATCAACTTT	TCCTAGATTC	TACTATTACA	AGTATTGATG	8040
CGACAGCTAC	TAAGACTGAG	AAAGGGAATT	TCTTTAAAAT	CGAGGCGGAG	ACTAATCTAA	8100
CTTCGGAGCA	GGCTGAAAAA	CTTAGGTACG	GGGTGGAAGG	CCGCTTGCAG	ATGATTACGG	8160
GCAAGAAAAG	TTACCTACGT	TATTATTTGG	ATCAATTTTT	GAACAAAGAG	TAATGTTTCGT	8220
GTTTTTAGAG	TTAAATAATT	TTTAAACTGT	GAGAAAGATT	CTTCTTGCAG	TTTTTTCTTT	8280
ACAATTTTTG	AAAAACATCT	ACTATTTATT	CGGTAAATTT	CTTGTGTTTT	TTGGTTTTTT	8340
GTGGTAAAAT	GTGCTCAAGT	AATACGAAAG	GCGAACTTTA	AAATGTCAAA	ACAATTGATC	8400
TATTCGGGAA	AAGCTAAAGA	TATCTATACA	ACTGAGGATG	AAAATCTTAT	TATTTCAACT	8460
TACAAGGACC	AGGCGACTGC	TTTCAACGGT	GTCAAGAAGG	AGCAGATTGC	AGGTAAGGGA	8520
GTCTTGAATA	ATCAGATCTC	ATCTTTTATT	TTTGAGAAAT	TAAATGTGGC	TGGTGTGGCG	8580
ACTCACTTTG	TGGAGAAACT	TTCAGACACG	GAACAACTCA	ATAAAAAGGT	TAAGATTATT	8640
CCTTTGGAAG	TCGTGCTCCG	CAACTATACT	GCTGGTTCCT	TTTCAAAACG	TTTTGGTGTG	8700
GATGAGGGAA	TCGCCTTGGA	GACTCCGATT	GTCGAATTTT	ACTACAAAAA	TGATGATTTG	8760
GATGATCCAT	TTATCAATGA	TGAGCATGTG	AAATTCCTAC	AGATTGCGGG	TGACCAGCAG	8820
ATTGCCTACT	TGAAGGAAGA	AACGCGTCGT	ATCAATGAAC	TATTGAAAGT	CTGGTTTGCT	8880

666

GAGATTGGGC	TTAAATTGAT	TGACTTTAAG	CTAGAGTTCG	GTTTTGACAA	GGATGGCAAG	8940
ATTATCTTGG	CAGACGAATT	TTCACCAGAT	AACTGCCGCT	TGTGGGACGC	TGATGGCAAC	9000
CACATGGATA	AGGATGTTTT	CCGTAGAGGA	TTGGGAGAAC	TAACCGACGT	TTATGAGATT	9060
GTTTTGGGAAA	AGTTGCAGGA	ATTGAAATAA	TCTGTTTGCA	ACGGAAAACC	TTCGTCTCTC	9120
AACTAAAAGG	ACTCAGGCTG	AAAAGGTCCC	CCAGACCTTT	TCACTCTGTA	GAGAACTAGG	9180
TGAACTAACA	GATGTTTACG	AAATTGTCCTG	GGAAAAGTTG	CAGGGTTTAA	AATAACAACC	9240
TCAAGGCTGT	TTGGGAATAT	TGCAAGAGCT	GAAATAAAGG	AATAAGAATT	GATGGATAAA	9300
CGTATTTTTG	TTGAAAAAAA	GGCTGATTTT	CAGGTCAAGT	CAGAGAGTTT	GGTTAGAGAG	9360
CTCCAGCACA	ACTTGGGACT	GTCAAGCTTG	AAAAGTATTC	GTATTGTGCA	AGTATATGAT	9420
GTATTTGACT	TGGCTGAGGA	CTTGTTTGCA	CCTGCAGAGA	AGCACATTTT	CTCTGAGCAG	9480
GTAACCGACC	ATGTTTTAGA	TGAAGTATCT	GTGCAGGCGG	ATCTTGCTAA	CTATGCTTTC	9540
TTTGCCATTG	AAAGTCTGCC	AGGGCAGTTT	GACCAGCGTG	CAGCTTCGTC	ACAGGAAGCC	9600
TTGCTTTTGT	TGGGAAGTTC	GAGTGACGTG	ACAGTCAACA	CAGCCCAACT	TTACTTGGTG	9660
AATAAAGATA	TTGATGCGAC	TGAGTTGGAA	GCTGTCAAAA	ACTACCTGCT	CAATCCAGTT	9720
GATTCTCGTT	TCAAGGATAT	CACGACAGGG	ATTGCCAAGC	AGGAGTTTTC	AGAGTCAGAC	9780
AAGACCATTG	CCAAATTGAC	TTTCTTTGAA	AGCTATGCAG	CAGAAGACTT	TGCTCGCTAC	9840
AAGGCCGAAC	AAGGGATGGC	CATGGAAGTG	GATGATTTGC	TCTTTATCCA	AGACTACTTT	9900
AAGTCAATCG	GGCGCGTGCC	AACTGAGACT	GAACCTAAGG	TTTTTGGACAC	TTACTGGTCT	9960
GACCACTGCC	GTCATACGAC	TTTTTGAGACA	GAGTTGAAAC	ACATCGACTT	TTCAGCTTCT	10020
AAATTTCAAA	AGCAATTGCA	GTCAACCTAT	GACAAGTATA	TTGCCATGCG	CGAGGAATTA	10080
GGTCGGTCTG	AAAAACCACA	AACCTTGATG	GATATGGCGA	CTATTTTCGG	TCGTTATGAG	10140
CGTGCTAATG	GACGATTGGA	TGATATGGAA	GTCTCTGACG	AAATCAATGC	CTGCTCAGTT	10200
GAAATTGAAG	TGGACGTTGA	TGGTGTCAAG	GAACCTTGGC	TCCTCATGTT	TAAAAACGAA	10260
ACCCACAACC	ATCCAACAGA	AATTGAGCCA	TTTGGTGGAG	CGGCTACCTG	TATTGGTGGA	10320
GCTATTCGTG	ATCCGTTGTC	AGGCCGTTCC	TATGTTTACC	AAGCCATGCG	TATTTCAGGT	10380
GCTGGTGATA	TTACAGCACC	GATTTCCGAA	ACTCGCGCTG	GGAAATTGCC	ACAACAAGTC	10440
ATTTCTAAAA	CAGCAGCTCA	TGGTTATTCT	TCATATGGTA	ACCAGATTGG	GCTTGCAACA	10500
ACCTACGTTC	GTGAATACTT	CCACCCAGGC	TTTGTAGCTA	AACGTATGGA	ACTTGGTGCC	10560
GTTGTTGGTG	CGACTCCCAA	GGGCAATGTT	GTCCGTGAAA	AACCTGAAGC	AGGTGATGTG	10620
ATCATCCTTC	TCGGAGGCAA	AACAGGTCGT	GATGGTGTCTG	GTGGTGCGAC	GGGCTCTTCT	10680

667

AAGGTTCAAA	CAGTTGAGTC	TGTAGAGACT	GCTGGTGCTG	AGGTTCAAAA	AGGAAATGCC	10740
ATCGAAGAAC	GCAAGATTCA	GCGCCTCTTC	CGTAATGGCA	ATGTCACCTCG	TCTGATCAAG	10800
AAGTCCAATG	ACTTTGGGGC	AGGCGGTGTC	TGTGTGGCTA	TCGGTGAATT	GGCAGACGGT	10860
CTTGAAATCG	ACCTCAACAA	GGTGCCTCTT	AAATACCAGG	GCTTGAATGG	TACAGAAATT	10920
GCCATCTCTG	AATCACAAGA	ACGGATGGCG	GTCGTGGTTC	GTCCTGAAGA	TGTGGATGCC	10980
TTCGTTGCCG	AATGTAACAA	AGAAAATATT	GATGCTGTTG	TGGTGGCGAC	AGTAACTGAA	11040
AAACCAAATC	TTGTCATGCA	CTGGAATGGT	GAGACAATCG	TTGACTTGGA	GCGTCGTTTC	11100
CTTGACACCA	ATGGTGTGCG	CGTGGTTGTC	GATGCCAAAG	TTGTGGACAA	GGATGTCAAA	11160
CTCCCAGAAG	AGCGTCAAAC	ATCTGCTGAA	ACACTGGAAT	CAGATACCCT	TACGGTTCTA	11220
TCTGACCTCA	ACCATGCAAG	TCAAAAAGGA	TTACAGACTA	TCTTTGACTG	CTCTGTTGGA	11280
CGCTCAACGG	TTAATCACCC	ACTTGGTGGT	CGTTACCAAC	TCACACCAAC	TGAGGCATCT	11340
GTGCAGAAAT	TGCCAGTTCA	ACACGGTGTG	ACTCATACTG	CGTCGGTCAT	TGCTCAAGGT	11400
TTCAACCCAT	ATGTAGCTGA	ATGGTCTCCA	TACCACGGTG	CTGCTTATGC	GGTTATCGAA	11460
GCAACTGCTC	GTTTGGTGGC	TGCTGGTGCC	AACTGGTTCA	AGGCTCGTTT	CTCTTACCAA	11520
GAGTATTTTCG	AGCGTATGGA	TAAACAAGCA	GAGCGTTTCG	GTCAGCCAGT	AGCTGCTCTT	11580
CTAGGTTCTA	TTGAAGCACA	AATTCAGCTT	GGCTTGCCAT	CTATCGGTGG	TAAGGACTCC	11640
ATGTCTGGTA	CCTTTGAAGA	ATTGACCGTT	CCGCCAACCT	TGGCTGCCTT	TGGGGTGACG	11700
ACGGCAGATA	GCCGTAAGGT	GCTCTCTCCA	GAATTTAAAG	CTGTTGGGGA	AAATATCTAC	11760
TACATCCCAG	GTCAAGCCCT	CTCTGCAGAG	ATTGATTTTG	ACTTGATTAA	GAAAAATTTT	11820
GCTCAGTTTG	AAGCCATCCA	AGCTGACCAT	AAAGTGACAT	CTGCATCAGC	TGTCAAATAC	11880
GGTGGTGTAG	TTGAAAGTTT	GGCTCTTGCT	ACCTTTGGAA	ACTATATTGG	TGCAGAGGTG	11940
ACCTTGCCTG	AACTTGAAAC	AGCTTTGACA	GCTCAATTAG	GCGGCTTTGT	CTTCACATCT	12000
CCTGAAGAAA	TTGCTGGAGT	AGAGAAGGTT	GGACAAACGA	AAGCAGACTT	TACACTGACT	12060
GTCAACGGTG	TGAAGCTAGA	TGGACACAAG	CTTGACAGTG	CATTTCAAGG	GACATTGGAA	12120
GAAGTTTACC	CAACAGAATT	TACCCAAGCG	AAAGAAGTAG	AAGAAGTACC	AGCTGTGGCA	12180
TCAGATGTTG	TGATTAAAGC	CAAAGAAAAG	GTTGAAAAAC	CTGTGGTTTA	CATCCCAGTC	12240
TTTCCAGGAA	CCAACTCAGA	ATATGATTCA	GCTAAGGCCT	TCGAAAAAGA	AGGTGCAGAG	12300
GTCAATTTGG	TGCCATTCGT	GACCTTGAAT	GAAGAAGCTA	TTGTCAAGTC	AGTTGAAACT	12360
ATGGTTGACA	ATATCGACAA	GACTAATATT	CTCTTCTTTG	CTGGTGGATT	CTCGGCTGCG	12420

668

GATGAACCAG	ATGGTTCAGC	TAAGTTTATC	GTCAATATCC	TGCTTAATGA	AAAAGTGCGT	12480
GTGGCTATTG	ATAGCTTTAT	CGCCCGTGGT	GGTTTGATTA	TCGGTATTTG	TAATGGATTC	12540
CAAGCCTTAG	TCAAATCGGG	TCTCCTACCC	TACGGAAACT	TTGAAGCTGC	TAACAGTACT	12600
AGCCCAACCC	TCTTCTACAA	TGATGCCAAC	CAACACGTGG	CCAAGATGGT	GGAAACTCGC	12660
ATTGCCAATA	CCAAC TCACC	ATGGTTGGTT	GGTGTGCAAG	TGGGCGATAT	CCACGCTATT	12720
CCTGTTTCGC	ACGGTGAAGG	GAAGTTTGTC	GTGACGGCTG	AGGAATTTGC	AGAGCTCCGT	12780
GACAATGGAC	AAATTTTCAG	CCAATACGTT	GACTTTAACG	GTAAACCAAG	TATGGATTCT	12840
AAGTACAATC	CGAATGGTTC	TGTCCATGCC	ATCGAAGGAA	TTACCAGCAA	GAATGGTCAA	12900
ATCATCGGTA	AGATGGGCCA	CTCAGAACGT	TATGAGGATG	GTCTTTTCCA	AAATATCCCA	12960
GGCAATAAAG	ACCAACACCT	GTTCGCATCA	GCGGTTAAAC	ATTTCACTGG	AAAATAAGAC	13020
TTACAGATTT	TCTAATAGAT	AGTATCAGTA	ATGTAAAAGT	CATGTAAATC	TAGCTCTTGA	13080
TGATTACAAA	TGAAAATTAG	GTATAAAAAA	TGACATACGA	AGTAAAATCT	CTTAATGAAG	13140
AATGTGGTGT	TTTCGGTATT	TGGGGACATC	CAGATGCTGC	TAAGTTGACC	TATTTTGGAC	13200
TCCACAGTCT	TCAACACCGT	GGTCAGGAGG	GGGCAGGAAT	CCTCTCCAAT	GATCAAGGAC	13260
AACTGAAGCG	CCATCGTGAC	ATGGGGCTTT	TATCAGAAGT	TTTCAGAAAT	CCAGCTAATT	13320
TGGATAAATT	GACAGGAGCT	GGTGCGATTG	GGCATGTGCG	TTATGCGACT	GCTGGCGAAG	13380
CTTCTGTAGA	TAACATCCAG	CCCTTCCTCT	TCCGTTTTCA	CGATATGCAG	TTTGTTTGG	13440
CTCATAATGG	AAATCTGACC	AATGCAGCCT	CTCTCAAGAA	AGAACTGGAA	CAAAGAGGAG	13500
CAATTTTCAG	CGCGACTTCG	GACTCTGAAA	TCTTGGCTCA	CCTCATTCGT	CGCAGTCATA	13560
ATCCTAGCCT	GATGGGCAAA	ATCAAGGAAG	CGCTCAGCCT	TGTCAAAGGT	GGTTTTGCCT	13620
ATATCTTGCT	GTTTGAGGAC	AAGTTGATTG	CGGCTCTTGA	CCCAAATGGA	TTCCGACCGC	13680
TTTCGATTGG	TAAAATGGCT	AATGGAGCAG	TTGTTGTATC	TTCTGAAACC	TGTGCTTTTG	13740
AGGTCATTGG	TGCCGAGTGG	ATTTCGTGATT	TGAAGCCAGG	TGAGATTGTG	ATCATTGATG	13800
ACGAGGGCAT	TCAGTATGAC	AGCTATACAG	ATGATACCCA	GTTGGCGGTT	TGTTCTATGG	13860
AGTATATCTA	CTTTGCTCGC	CCTGATTCTA	ATATCCACGG	TGTCAATGTC	CATACGGCAC	13920
GTAAGAGAAT	GGGAGCGCAA	TTGGCGCGAG	AATTTAAGCA	TGAGGCAGAT	ATTGTAGTTG	13980
GTGTGCCCCA	TTCTTCCCTA	AGCGCGGCTA	TGGGATTTGC	GGAAGAATCA	GGCTTACCAA	14040
ATGAAATGGG	TCTGATCAAA	AACCAATACA	CCCAGCGAAC	TTTTATCCAA	CCGACTCAAG	14100
AATTGCGGGA	GCAAGGAGTG	CGGATGAAAC	TGTCTGCTGT	TTCGGGTGTT	GTCAAAGGCA	14160
AACGTGTGGT	CATGGTGGAT	GATTCCATTG	TACGTGGAAC	AACCTCTCGT	CGTATCGTTC	14220

669

AGCTCTTGAA	AGAAGCGGGT	GCGACTGAGG	TTCACGTTGC	CATTGGAAGT	CCTGCACTAG	14280
CGTATCCATG	TTTCTACGGG	ATTGATATCC	AGACCCGTCA	GGAGCTGATT	GCAGCCAATC	14340
ATACGGTCGA	AGAAACTCGC	CAAATCATTG	GTGCGGACAG	TCTGACTTAT	CTTTCAATTG	14400
ATGGCTTGAT	TGAGTCGATT	GGTATCGAAA	CAGATGCGCC	GAACGGTGGT	CTCTGTGTCG	14460
CTTACTTTGA	CGGTGACTAC	CCAACGCCTC	TTTATGACTA	CGAAGAAGAC	TATCGTAGAA	14520
GTTTGAAGA	AAAGACCAGT	TTTTACAAGT	AGGCGACAGA	TTCTCCATTA	AAGAAAAGGA	14580
AAAAATAAAT	GACAAATAAA	AATGCATATG	CCTCACGTCT	CACTACTGAC	TAAAGGCTTA	14640
AGCATTTAGT	CAGTAGACGC	TTTGTCTTAT	AGGATCAAAG	CTAGAGCCCT	GACTAGTATT	14700
TTTAGATAAA	AAGATGGTTT	ATCTAAAAAT	ACGTCGCAGT	CTTTCTCAAA	AAAAGAAAAG	14760
GAAAAATAAA	ATGGCAAATA	AAAATGCGTA	CGCTCAATCT	GGTGTGGATG	TTGAAGCGGG	14820
TTATGAAGTT	GTTGAACGGA	TTAAAAAGCA	CGTGGCCCGT	ACGGAGCGTG	CAGGTGTCAT	14880
GGGAGCTCTT	GGTGGCTTTG	GTGGTATGTT	TGACCTTTCC	AAGACTGGGG	TTAAAGAACC	14940
CGTCTTGATT	TCAGGGACTG	ACGGTGTCCG	AACCAAGCTC	ATGTTGGCTA	TCAAGTACGA	15000
CAAGCACGAT	ACCATCGGGC	AGGACTGTGT	GGCCATGTGT	GTCAACGACA	TCATTGCTGC	15060
AGGTGCGGAA	CCCCTCTATT	TTCTCGACTA	CGTAGCGACA	GGGAAGAATG	AACCAGCTAA	15120
GCTAGAACAA	GTGGTTGCTG	GTGTGGCAGA	AGGTTGTGTG	CAGGCTGGTG	CTGCCCTCAT	15180
CGGTGGGGAA	ACGGCTGAAA	TGCCGGGCAT	GTACGGCGAA	GACGACTATG	ACTTGGCTGG	15240
TTTTGCGGTC	GGTGTGGCTG	AAAAATCTCA	AATCATTGAC	GGTTCAAAGG	TGGTAGAGGG	15300
AGATGTTCTT	CTCGGACTTG	CTTCAAGTGG	GATTCACCTA	AATGGTTACT	CTTTGGTTCTG	15360
TCGTGTCTTT	GCGGATTACA	CAGGTGAGGA	AGTCCTACCA	GAATTGGAAG	GCAAGAAACT	15420
TAAGGAAGTT	CTACTTGAGC	CGACTCGTAT	CTATGTCAAG	GCTGTCTTGC	CGCTCATCAA	15480
AGAAGAGTTG	GTCAACGGCA	TTGCCACAT	CACAGGTGGT	GGCTTTATCG	AAAATGTCCC	15540
TCGTATGTTT	GCAGATGACC	TAGCTGCTGA	AATTGATGAA	AGTAAAGTTC	CAGTGCTTCC	15600
AATTTTCAAA	ACCCTTGAAA	AATACGGTCA	GATTAAACAC	GAAGAAATGT	TTGAAATCTT	15660
CAATATGGGT	GTGGGACTTA	TGTTGGCGGT	CAGCCCTGAA	AATGTAGAGC	GTGTAAAAGA	15720
ATTGTTGGAT	GAAGCAGTCT	ATGAAATTGG	TCGCATCGTC	AAGAAAGAAA	ACGAAAGTGT	15780
CATTATCAAA	TGAAAAAAT	AGCGGTTTTT	GCCTCTGGTA	ATGGCTCAAA	TTTTTCAGGTG	15840
ATTGCCGAAG	AATTTCCAGT	GGAGTTTGTC	TTTTCAGACC	ATCGTGATGC	CTATGTGCTT	15900
GAGCGTGCAA	AGCAGCTCGG	CGTTCTGTCC	TATGCTTTTG	AACTCAAGGA	GTTTGAGAGC	15960

670

AAGGCAGACT	ACGAAGCAGC	CCTTGTCGAA	CTCTTGGAAG	AACACCAGAT	TGACTTG GTT	16020
TGCCTAGCAG	GCTACATGAA	AATCGTTGGA	CCAACCTTAT	TGTCGGCTTA	TGAAGGTCGG	16080
ATTGTCAACA	TTCATCCAGC	CTACTTGCCA	GAATTTCCAG	GAGCTCATGG	GATTGAGGAT	16140
GCTTGGAATG	CTGGCGTGGG	TCAGTCTGGT	GTGACCATTTC	ACTGGGTGGA	TTCGGGTGTG	16200
GATACAGGCC	AGGTCATCAA	ACAGGTTTCGT	GTGCCACGAC	TAGCTGATGA	TACCATTGAC	16260
AGATTTGAAG	CTCGCATCCA	TGAAGCAGAG	TACAGGCTGT	ATCCGGAAGT	AGTGAAGGCT	16320
CTATTTACAG	ATTGACTTTT	TGATGATTCA	TATGATATCT	TTGATTTTAA	ATTGGAGTCA	16380
GTGTTTGTG	AAGACGGCTT	CAAACGGAGG	TATTTGTAAT	GTTAGAATCT	AAAAAAACAA	16440
CTCGATATGT	ATTTTATGTC	TATCTGATGT	TATTAAC TTG	GGGAATCTTA	TTTAAGTTTG	16500
AAACAAATCC	TGAATTTATA	GCATTTTCT	TAGCTCCAAG	GTATATCAAT	TGGATTCCAT	16560
TTTCAGAAC	ACTAATAGTC	GATGGAAAA	TTGTTTTGTC	TGAAATGTTA	TTTAATCTGA	16620
TTTTCTTTAT	TCCATTAGGT	GTTTGT TCC	CTTTGATAAA	AACTAATTTA	TCTAGTTTAA	16680
GAATAGTCGG	GACAGGTTTC	TTGATTAGTT	TATTGTTTGA	GTGCTTACAG	TATATTTTAG	16740
CAATAGGTAT	AACAGATATA	ACGGATTTGA	CTTTAAATAC	GCTAGGTGTC	TGTGTAGGCT	16800
TACTGATTTA	TCAAATTTTT	ATAAGAGTGT	TCAAATCACA	GACTAGAAAA	TGGATCAATA	16860
TCTTAGGTAT	GCTTAGCCTT	GGTTTTGCTT	ATCTTGTTTT	ACTGTTACTG	CATTTACTTA	16920
GTGTTTAACT	AATGATTAAA	AAGGAGAATA	TAATGACTAA	ACGCGTCTTA	ATCAGCGTCT	16980
CAGACAAAGC	GGGCATTGTT	GAATTTGCCC	AAGAACTCAA	AAAAC TTGGT	TGGGAGATTA	17040
TCTCAACAGG	TGGAAC TAAG	GTTGCCCTTG	ATAATGCTGG	GGTGGATACC	ATTGCTATCG	17100
ATGATGTGAC	TGGTTTCCCA	GAAATGATGG	ACGGTCGTGT	GAAGACCCTC	CACCCAAATA	17160
TCCACGGAGG	GCTTCTCGCT	CGTCGTGACT	TGGATAGCCA	CTTGGAAGCG	GCTAAGGACA	17220
ACAAGATTGA	GCTCATTGAC	CTTGTGGTGG	TCAACCTTTA	CCCATTTAAG	GAAACTATCC	17280
TTAAACCAGA	TGTGACTTAT	GCTGATGCAG	TTGAAAATAT	CGATATTGGT	GGGCCATCTA	17340
TGCTTCGTTC	AGCAGCGAAA	AATCATGCCA	GTGTTACAGT	TGTGGTAGAT	CCTGCTGACT	17400
ACGCTGTGGT	TTTGGATGAA	TTGGCAGCAA	ACGGCGAAAC	CTCTTATGAA	ACTCGCCAAC	17460
GTTTAGCAGC	CAAAGTATTT	CGTCACACAG	CGGCTTATGA	CGCCTTGATT	GCAGAATACT	17520
TCACAGCTCA	AGTGGGTGAA	AGCAAGCCTG	AAAAACTCAC	TTTGACTTAT	GACCTCAAGC	17580
AACCAATGCG	TTACGGTGAG	AATCCTCAAC	AAGACGCGGA	CTTTTACCAG	AAAGCTTTGC	17640
CTACAGACTA	CTCCATTGCT	TCAGCCAAAC	AGCTCAACGG	GAAAGAATTG	TCATTTAATA	17700
ATATCCGTGA	TGCAGATGCT	GCTATCCGTA	TCATCCGTGA	CTTCAAAGAT	AGTCCAACCG	17760

671

TTGTGGCTCT	CAAACACATG	AATCCATGTG	GAATTGGTCA	AGCTGATGAC	ATCGAGACTG	17820
CTTGGGACTA	CGCTTATGAG	TCTGACCCAG	TGTCTATCTT	TGGTGGGATT	GTCGTCCTCA	17880
ACCGTGAGGT	GGATGCTGCG	ACAGCTGAGA	AGATGCACGG	CGTTTTCTCT	GAAATCATCA	17940
TTGCACCAAG	CTATACGGAT	GAAGCGCTAG	CCATTTTGAT	CAATAAAAAG	AAAAACTTGC	18000
GTATCCTTGC	CTTGCCATTT	AATGCTCAAG	AGGCTAGCGA	AGTGGAAGCA	GAATACACAG	18060
GTGTAGTCGG	TGGACTTCTC	GTGCAAAATC	AAGACGTGGT	CAAGGAAAGC	CCAGCTGACT	18120
GGCAAGTGGT	GACTAAACGT	CAGCCAACTG	AGACAGAAGC	GACTGCTCTT	GAGTTCGCTT	18180
GGAAGGCTAT	CAAGTACGTC	AAATCAAATG	GTATTATCGT	GACCAACGAC	CACATGACAC	18240
TTGGTGTTGG	TCCAGGTCAA	ACCAACCGTG	TGGCTTCTGT	TCGCCTTGCC	ATTGACCAAG	18300
CCAAAGATCG	TCTGGACGGG	GCGGTCCTTG	CTTCAGATGC	CTTCTTCCCA	TTTGCGGATA	18360
ACGTGGAAGA	AATCGCCAAA	GCAGGAATTA	AGGCCATCAT	CCAGCCCGGT	GGCTCTGTCC	18420
GTGACCAAGA	ATCCATCGAA	GCAGCGGATA	AATACGGCTT	GACTATGGTC	TTTACAGGTG	18480
TGAGACATTT	TAGACATTAA	GAAGATAAAA	GGGAAGAAAA	CAGTTTCTTT	CCTTTTTTTGG	18540
CTTAAAATAC	TAAGTGAAC	AAGATTAAAA	CGAACTTTTT	TGATATAATG	TTGGTAAATA	18600
ATTTCGAAAA	GAGGTTGAGG	AATGAAACTG	CTTGTTGTCT	GTTCTGGTGG	TCGTGAGCAT	18660
GCGATTGCTA	AAAAGTTACT	TGAATCAAAA	GACGTGGAAA	AAGTCTTTGT	AGCTCCTGGG	18720
AATGATGGGA	TGACTCTGGA	TGGTTTGGA	TTGGTAAATA	TCTCTATTTT	CGAACATTAT	18780
AAATTGATTG	ACTTCGCAAA	GACCAATGAT	GTTGCTTGGA	CCTTTATCGG	TCCAGATGAT	18840
GCCCTTGCTG	CTGGTATCGT	GGATGATTTT	AACCAAGCTG	GACTTAAGGC	CTTTGGTCCG	18900
ACTAGGGCTG	CAGCGGAGCT	GGAGTGGTCC	AAGGATTTCT	CCAAGGAAAT	CATGGTCAAA	18960
TACGGCGTTC	CGACAGCAAC	ATATGGCACA	TTTTTCAGATT	TCGAGGAAGC	CAAAGCCTAT	19020
ATCGAAAAGC	ATGGTGCGCC	TATCGTAGTC	AAGGCGGATG	GCTTGGCACT	TGGGAAGGGT	19080
GTCGTCGTTG	CTGAGACGGT	TGAGCAAGCG	GTCGAAGCCG	CTCATGAGAT	GCTTTTGGAC	19140
AATAAATTTG	GTGACTCAGG	TGCGCGCGTG	GTTATTGAGG	AATTCCTTGA	AGGAGAGGAA	19200
TTTTCACTCT	TTGCCTTTGT	CAATGGTGAT	AAGTTCTACA	TCATGCCAAC	GGCTCAGGAC	19260
CACAAACGTG	CCTATGATGG	CGACAAAGGG	CCTAACACGG	GTGGTATGGG	TGCCTATGCG	19320
CCAGTCCCAC	ACTTACCACA	GAGTGTAAGT	GATACAGCGG	TTGACACCAT	TGTCAAGCCA	19380
GTTCTAGAAG	GGGTGATTAA	AGAAGGTCGC	CCTTATCTGG	GAGTTCTTTA	CGCAGGGCTT	19440
ATCCTGACAG	CTGATGGACC	GAAAGTCATT	GAGTTCAACG	CTCGGTTCGG	AGATCCAGAA	19500

672

ACTCAGATTA	TCTTGCCTCG	CTTGACCTCT	GACTTTGCTC	AAAATATCAC	AGATATCCTG	19560
GATAGCAAGG	AGCCAAATAT	CATGTGGACG	GACAAGGGTG	TGACTCTGGG	TGTGGTTGTC	19620
GCATCCAAGG	GCTACCCGCT	AGACTATGAA	AGGGGCGTTG	AGTTGCCAGC	CAAGACAGAA	19680
GGCGATGTCA	TCACCTACTA	TGCAGGGGCT	AAGTTTGCGG	AAAATAGCAG	AGCACTGCTC	19740
TCAAACGGCG	GACGAGTTTA	TATGCTCGTT	ACCACAGCAG	ATACCGTCAA	AGAAGCCCAA	19800
GCCAGCATAT	ACCAAGAACT	ATACCAACAA	AAAATAGAAG	GACTCTTCTA	CCGAACAGAT	19860
ATCGGAAGCA	AGGCAATTAA	GTAAAGATAT	AAGAATAACG	CGCCGTAGTC	GCCAAACACG	19920
ATAATGGTCG	TCGTGGTGAA	AAGACCAGAA	CAGTGAATGT	TCTGGTCAGG	GGGAAACTTG	19980
GAGACCTTAG	GCTCAAAGTT	TAGGAATGAA	ACCGAAGGTT	TGCTTCCGCC	TCCATCACCT	20040
AAGACCATTA	TCAAAAAGAA	AAATAAAAAT	TCACAAAATA	CGTTAATGAT	CGTATGGTTT	20100
GCGAGCGTTA	GCGAGCTAAT	ATAGAACAAT	CACCGCCGTT	GTGAAAGAAC	GATTGGATGA	20160
TAATCCAATC	GTTCAGGGAA	ATTGGAAGAC	CTTGGGTTTC	CAATTTAGGC	ATGAGACACC	20220
TTTGGTGGCT	GCTGCCGTCC	CTCACAAGCT	AAGGTGATTG	TTGAAAAAGA	GGAAAAAGGA	20280
GAAGAAATGA	AACCAGTAAT	TTCCATCATC	ATGGGCTCAA	AATCCGACTG	GGCAACCATG	20340
CAAAAAACAG	CAGAAGTCCT	AGACCGCTTC	GGTGTAGCCT	ACGAAAAGAA	AGTTGTTTCC	20400
GCACACCGTA	CACCAGACCT	CATGTTCAAA	CATGCAGAAG	AAGCCCGTAG	TCGTGGCATC	20460
AAGATCATCA	TCGCAGGTGC	TGGTGGCGCA	GCGCATTTGC	CAGGCATGGT	AGCTGCCAAA	20520
ACAACCCTTC	CAGTCATTGG	TGTGCCAGTC	AAGTCTCGTG	CTCTTAGTGG	AGTGGATTCA	20580
CTCTATTCTA	TCGTTTCAGAT	GCCGGGTGGG	GTGCCTGTTG	CGACCATGGC	TATCGGTGAA	20640
GCTGGAGCGA	CTAACGCAGC	TCTCTTTGCC	CTCCGTCTCC	TCTCTGTAGA	AGATAAGTCC	20700
ATTGCGGATG	CACTTGCCAA	CTTTGCTGAA	GAACAAGGAA	AAATCGCAGA	GGAGTCGTCA	20760
AATGAGCTCA	TCTAAAACAA	TCGGAATTAT	CGGTGGCGGT	CAACTGGGTC	AGATGATGGC	20820
CATTTCTGCT	ATCTACATGG	GCCACAAGGT	TATCGCGCTG	GATCCTGCGG	CGGATTGCCC	20880
GGTCTCTCGT	GTGGCGGAAA	TCATTGTGGC	ACCTTATAAC	GATGTAGACG	CCCTCCGTCA	20940
GTTGGCAGAC	CGTTGCGATG	TCCTCACTTA	TGAGTTTGAA	AATGTCGACG	CTGACGGTTT	21000
GGATGCCGTT	ATCAAGGATG	GACAACTCCC	TCAAGGAACA	GATCTGCTCC	GCATTTGCGA	21060
AAATCGTATT	TTTGAAAAGG	ACTTTTTGTC	AAACAAGGCT	CAAGTCACTG	TGGCACCCCTA	21120
CAAGGTCGTG	ACTTCTAGCC	TAGACTTGGC	AGATATCGAC	TTGTGAAAAA	ACTATGTCCT	21180
CAAGACTGCG	ACTGGTGGCT	ACGATGGTCA	TGGACAAAAG	GTTATTTCGTT	CAGAAGCAGA	21240
CTTGGAAGCA	GCCTATGCGC	TAGCAGACTC	AGCAGACTGC	GTCTTGGAAG	AATTTGTCAA	21300

673

CTTTGACCTT	GAGATTTCTG	TCATCGTGTC	AGGAAATGGC	AAGGAGGTGA	CGTTTTTCCC	21360
AGTTCAGGAA	AATATCCACC	GCAACAATAT	CCTGTCTAAG	ACCATCGTAC	CAGCCCGCAT	21420
TTCTGAAAGT	CTAGTAGACA	AGGCTAAAGC	TATGGCAGTG	CGAATCGCAG	AACAACTCAA	21480
CTTGCTGGA	ACTCTCTGTG	TGGAAATGTT	TGCGACAGCT	GATGACATCA	TTGTCAATGA	21540
AATCGCCCCA	CGACCACATA	ACTCTGGGCA	CTATTCTATT	GAAGCCTGTG	ATTTCTCTCA	21600
GTTTGACACC	CATATTCTGG	GTGTTCTCGG	AGCACCATTA	CCAGTCATCA	AACTCCATGC	21660
GCCAGCCGTT	ATGCTTAATG	TCCTCGGTCA	GCATGTCGAG	GCTGCTGAAA	AATATGTCAC	21720
AGAAAATCCA	AGCGCCCACC	TCCACATGTA	TGGTAAAATA	GAAGCAAAGC	ATAATCGTAA	21780
GATGGGACAT	GTGACTTTGT	TTAGTGATGT	GCCGGATAGT	GTGGAAGAGT	TTGGGGAAGG	21840
GATTGATTTT	TAGGACAAGT	CTATGATACA	AATTATCGTT	AATACATTTA	TTGAAAAGTA	21900
TAAGACTGGA	GCAGTTGTTG	AAGTGTTGTA	TGCCAGTGCT	GACCAAGATA	AGGTACAAGC	21960
TAAATATGAA	GAAGTAGCTG	CACAATACCC	CGAAAATTAT	TTAGCTATCT	ATAATGTACC	22020
GCTGGATACG	GATTTGAATA	CACTAGATCA	TTACCCGTCT	GTGTTTATTG	GAAAAGAGGA	22080
GTTTGAGTAG	AAATCTTGGT	TTACCTAGAT	AGCTTATTCC	CAACAGCTTA	AGAAGAAAGG	22140
AAAAATTAAC	ACATGATCAA	CCGTTACTCT	CGCCCTGAGA	TGGCGAATAT	TTGGAGTGAA	22200
GAAAATAAAT	ACCGTGCTTG	GCTTGAGGTG	GAAATCCTCT	CTGACGAGGC	ATGGGCTGAG	22260
TTGGGGGAAA	TCCCTAAGGA	AGATGTGGCT	TTGATTTCGA	AGAAGGCGGA	CTTTGACATC	22320
GACCGTATTT	TGGAAATTGA	GCAGGAGACG	CGCCACGATG	TGGTGGCTTT	CACGCGTGCG	22380
GTTTCTGAGA	CTCTTGGTGA	AGAGCGCAAG	TGGGTTCACT	ATGGGTTAAC	TTCTACTGAC	22440
GTGGTGGATA	CTGCTTATGG	TTACCTCTAC	AAGCAGGCCA	ACGACATCAT	CCGTCGTGAC	22500
CTTGAAAAC	TCACTAATAT	CATCGCTGAC	AAGGCCAAGG	AGCACAAGTT	CACCATCATG	22560
ATGGGGCGTA	CTCATGGTGT	GCACGCTGAG	CCGACAACCT	TTGGTCTTAA	ATTAGCAACT	22620
TGGTACAGCG	AAATGAAACG	CAATATCGAG	CGCTTCGAGC	ATGCGGCTGC	TGGTGTAGAA	22680
GCTGGTAAGA	TTTCTGGTGC	GGTTGGGAAC	TTTGCCAATA	TCCCACCATT	TGTAGAGGAG	22740
TATGTCTGCG	ATAAACTTGG	CATCCGTGCC	CAAGAAATCT	CTACACAAGT	CCTTCCTCGT	22800
GACCTTCACG	CTGAGTACTT	TGCGGTCTCT	GCCAGCATTG	CGACTTCAAT	CGAACGTATG	22860
GCGACTGAGA	TTCGTGGTCT	ACAAAAATCT	GAGCAACGCG	AAGTAGAAGA	GTTCTTTGCT	22920
AAAGGGCAAA	AAGGGTCTTC	AGCAATGCCT	CACAAACGCA	ACCCAATCGG	TTCTGAAAAT	22980
ATGACTGGTC	TGGCGCGTGT	CATTCGTGGT	CACATGATTA	CGGCTTATGA	AAACGTCGCT	23040

674

CTCTGGCATG AACGCGATAT TTCTCACTCA TCAGCTGAGC GTATCATCAC ACCAGATACG	23100
ACCATTTTGA TTGACTACAT GCTCAACCGT TTTGGAAATA TCGTCAAGAA CTTGACAGTC	23160
TTCCCAGAAA ATATGATCCG AAACATGAAC TCGACTTTTG GTCTTATCTT TAGCCAACGG	23220
GCTATGTTGA CATTGATTGA AAAAGGCATG ACCCGTGAGC AAGCCTATGA CTTGGTGCAA	23280
CAAAAACAGC CTA CTCTCTTGG GACAACCAAG TAGACTTTAA ACCACTTCTT GAGGCAGATT	23340
CAGAAGTAAC ATCACGTCTC ACACAAGAAG AAATCGATGA AATCTTCAAC CCAGTTTAT	23400
ACACCAAACG AGTGGATGAT ATCTTTGAAC GTCTTGGA CT AGGTGATTAA TTA	23460
AACAGCGAGC TTCAATCTCG CTGTTTATTT TTTATCGAAA AGACTTAGTC TTCTTTTCTT	23520
TTAGTGAGTC CATAGGCTGC TAGTGTGGAC ATGAGTCCTG CGACTACTAG TCCTGCAGAA	23580
TCGTGAGTTC CTGTTTCAGG AAGTTTTTTC TCTGTTACCA CAGGAGCTGG ATCTTGAGGA	23640
AGAACTTTGC TTTCCTCAGC AGGAGCAGTT GATGGAGCTG GTTGGCTTGG GATTTCTAGT	23700
TTTGGTTTTT CTTCAGCAAT AGCGGCTTGT CCGTTTTTCAT CGCCTACATG TGTTACCATA	23760
GTTCCGACTT CGACTATTTG AGTAACGGCT TCCTGTGCTA CGACACTATT TACAAGTGTT	23820
TTCACCTCCT TACCATCGGC AGAAGTGCTC ACAGAGTAGA AGTTGCTACG ATGTCCATTG	23880
ACGCCCTTAG TAATGACTTG TGTTTTTCCT TTGAGTAAGA GTGGATTTTC ACAAGTCACT	23940
GTGGTAAATG GAATTTCTTC TTCTTGGATA TCCAGTCTAG GTTTTACCTC AGTAGTTGGT	24000
GCAAGACCAC TTTCATCACC CTTGTGAGTT ACAGGAGCGC CAACTTCAAC CACTTGGTTT	24060
ATAACTTCTT TGGTTACCTG GCTATCAAGG ACTGTTTCTG TTGTTTTTCC ATTTTCAGTG	24120
AGTACAGAGA TGTAAATGAGT TCGTTCACCT TTGACTCCTG CTGTGATAAT ATTTTCCTGA	24180
CCGGCTGGGA GGTTAGGATT TTCTTTCTTG ATA ACTTCAA ATGGAATTTT TTCAGTTCTT	24240
GTGATGAGTT CTGGTCTGGT TTCAACATTG GCAGCCACTT CATTTTCATC TAGGCTTCCT	24300
GAATGAGTTA CAGCTGGTTT GAGGCCTTGA AGAGCGGCTT TTAGGTTGGC TACAAGCGTG	24360
TCAAGCTCAG CTTGTTTATT ACGGTTGAGG TTGTAATTTA GAGCTGTTTT AGCTGCGTCA	24420
AGGGCCTCAA GACTTTCTTT ACTATATCCT TCTAAGTTTG TAGGAATTTT AGCTAATTCT	24480
TCGCGGAGAG CATTATAATT AGCACGAAAG TAGTCTTTGT TGTGGTCTGC AAAGGCAGTC	24540
ATGAGTTCAA AGATTTCTC TTCCTTGAT TCAGCGCTTG GTCTATCTGC CCAGATTGAA	24600
AGCATACTTC CGACTGTTGG AAGATCTACT TCAGGATATT TGGTAGAAGC TAGTTGATTG	24660
AATGGTGTTT TTCCAGTATT CTCAATAGCT TTCTTGAGGA AACCACCACC ATCTTCTGGT	24720
TTTTGACCAA GAATGTAGTA CCAGTCACCG TTGGTATTCA AGAATTTATA GCCTTTGCTT	24780
GCTAGGTATT GAGGTGATGC GAGGTTATAT CCCCACCAGC CTTTAGACCA GTAAGAAATC	24840

675

AAGACATCTT	TGTCAAAC	TG AACATCGTCC	TTGTCTTCAT	AGTAGAAGCC	ATCGTTGAAG	24900
GCCATTGGTT	GAAGCCCTCT	TTCTTTGGCC	ATAGCTGCGA	GGGTGTTGGC	ATATTCGGCA	24960
AATTTGCCAT	AGAGTTGATA	CCACTTGAGG	TAGTACCAGC	CTTGGGCACT	AGTCGCATCG	25020
TTGGCGTATT	CGTCAGTACC	AAAGTTGAAA	ATCTTTGTTT	TACCTGCAAA	GAAGTCCATG	25080
TATTTACCGA	TGAGGGCTTT	TACAAAGTTC	ATCGCTTCTT	CGTTTTTCAA	GTCCATAGTT	25140
GTTTTTGAAA	CTTTATCAAA	GTGGGCTTGA	GGATTTTTTAA	TACCTAATTT	TTCCATGGCA	25200
ACCAGCATAG	CATCCATGTG	ACCTGGACTG	TTAATAGCTG	GGATGAGACC	GATGTCCTTA	25260
GATTTAGCGT	ATTCAATTAG	CTCTGTTACT	TCTGCCTGTG	TTAGTGCAGT	ACCGTTTGGA	25320
TCGTCTAGT	AAGCTTTAGT	TCCTTCGATA	ATAGCTTTTTT	TAACGTCATC	ACTAGCATAG	25380
GTTTTTCCGT	TGGCAGTAAT	GGTCATATCA	TCGAGTAGAA	AGCGAAGTCC	GTCATTTCCCT	25440
AGAAGGAGAT	GGACATCAGA	ATATCCGAGC	TCACTGGCCT	TGTCTACGAT	GCGTTTGAGC	25500
TGGTTCAGAG	TAAAGTATTT	GCGTCCAGCA	TCGATTGAGA	TTACCTTGTT	TTTGGCAAGT	25560
TTTTCAACCT	CACGTTTAGC	TTCTTCTTCT	TTTTGAGCTT	CAGGCGTGAG	GGTCAAGTTG	25620
TTGACAGTTT	CTTGAAGTTT	AGCAATGGCT	TGATCAATCG	TATCTTGTTG	GGCACGGCTA	25680
AGGTTGCTAT	CGAGAGAGCG	AATAGCTTTT	TCAGCTTCTT	TTACGGCCGT	GACGCTTTCT	25740
GCAGTATAAC	GGTTCAGGTC	TTTTGGTACC	TCGTTAAGTG	CTTGCTCTGC	AGATTCATAA	25800
TCAGCTGCGA	AGTATTCAGC	GTTGGCATT	GCAAAATGAC	GCATGAGTTT	GAAGAGGCGT	25860
GATGGTGAAT	AACGTGCAGA	TGGAGTGTCA	GCCCAAGCAG	CTACCATAACC	ACCGATGATT	25920
GGGATATCAG	CTCCTTCTGT	TTTTGGTACA	GAAGTGATTG	GTGTGTTTTT	AATACCATTG	25980
AGCCCCTGAT	CGAGATTGTA	CCAGCCTTGG	CCATCAGCGT	TTCGTCCAAG	AACGTAGTAC	26040
CAAGCATCAT	TGGTATTAAG	GATTTGGTGA	CCTTTTTTCAG	CTAGTAGTTT	AGAAGAAGCG	26100
ACATCGTAGC	CTCCCCAACC	ACCAGTCCAC	ATAGAAACGA	TGATGTCTTT	GTCAAAACTA	26160
CCAAAGCTTG	TGTCGCTATT	GTAGTAGATA	CCGTCTGTAA	AAGCCATTGG	TTTGAGACCG	26220
TGCGATTTTA	CAATACGAGC	GAGGTCATTG	GCGTAGGCAA	TAAATTTTTT	ATAGCCTTTT	26280
ACAGGGTAGC	CTTCGTTTGG	ATAGTATTTA	TCAGCTTGAA	GCACACTCCA	ACCTTTAGCA	26340
TCTGTCGCAT	CATTGGCATA	TTCATCAAGT	CCGATGTTGA	AGATTTTCAGT	CTTTTTTCGCG	26400
AAATAAGCAG	CATACTTGTC	GATAAGGGCT	TTTGTAAGAG	CGACAGCTTG	TTCGTTGTCA	26460
AGATCGACAG	TACGGGCTGA	TTCTTCCCA	AAATAGCTAA	AGTTAGGGTT	TTGGATTCCC	26520
AATCTTTTCA	TGGCATTGAG	AATCGCATCC	ATGTGTCCAG	GACTATTTAC	TGTCGGAATG	26580

676

AGACCGATAC	CTTTATCTTT	GGCATAGTTA	ATCAGATCTG	TCATTTGACT	TTCTGTTAAG	26640
TGATTGCCGT	TTGGATCGTT	GTAATAATCA	TTTGTACCTT	TTTCAATGGC	GCGTTTGACA	26700
TCGTCACTGG	CATAGGTCTT	GCCGTTAGCT	GTGATGCTCA	TATCGTCCAA	CATGAAACGG	26760
AGTCCATCAT	TTCCGACTAA	TAGGTGTAAA	TCAGTGTAGC	CATAATGTTT	CGCTTTATCG	26820
ATGATTTCCCT	TGAGCTGTTT	TGGTGAGAAA	TATTTACGTC	CAGCATCAAT	AGAAACAATT	26880
TTCTTTTTTCG	CTAGTTTTTC	ATTTACAGTT	GCAGCACGTT	CCTTTCCTGC	CTCTGTTGCC	26940
GGTTTGTCAG	CCTCTGCTTT	CGCTTCATCT	TTTTTAGCTG	GTTTATCCTT	GTCAGTCTTG	27000
TCTGTATTTG	ACTCTTTAGA	ATCAACCTCT	TTCGCTTCTT	CCTTTTtagg	GCTAGCTTCT	27060
TCTGCCTTTT	TATTAGCAGT	TTCTTTTTCA	GCAGAAAGTTG	GAGTTACCAC	TTCTGCTTTA	27120
TCACTAGGAG	TTGAACTAAC	TTCTCTTGT	GGTTTTTCTT	CTGTTTTTGG	AAGACTAGCT	27180
ACCTTATCAG	TAGCTGGAGT	TTCTGTTTCT	ACAGTTTTTG	GAGCTTCTGG	TTGAAGCACT	27240
GCTTTAGGTG	TTTCCTCAGT	CCGATTTTCG	GATGATTGAG	GGGAATCAGA	AACCGTATGG	27300
ATGGTCGGTT	GGTTTTCTGT	AGTAGTAGGA	GTAAGTCCAT	CGGCTGCAAC	AGTCTGTGCT	27360
TGGAAGGCAA	ATCCAATTAG	AACAGAAGCT	GCTCCTACAG	CGTATTTACG	AATAGAAAAA	27420
CGCTGTTGTT	TTTCATGTTT	CATTGCAAAA	CCTCCTGATT	GCATTGTTAT	ATTGATAGCG	27480
ATTATATAAA	TCAACGCCTT	TATTTTATTT	CTTATATTAA	TTTCTTATAT	TAACGAGAGT	27540
CAAGAGGAGA	TGACAAAAAA	CTATAATAAG	TATAAAAAAA	TATAAAATTT	AAACTTAAGA	27600
TTTCAGATTG	GTCGGAAAAA	ATACGTATAT	ATATCTAGTA	TAATTTTTGG	TTCTATTTCT	27660
ATAAAATATT	CCACAAATTA	TAGAATTTTC	CAAAAATAGG	TAAGCGCTAC	CTTTTTGGTG	27720
TAGTATAATA	AGCATAGAAA	AAGCCCAAGC	GATTAGCTCA	GGTTTTCTTC	TTAGTGATCA	27780
CGGTCACATG	AGATAAATTT	AATCTTGTA	TAATCAGATC	GTTTGTAAGT	TTCACTGTAT	27840
TCTAAAACTT	GGCCAGTTGA	TTCGAGTTTG	GTGATTTTAG	TTGTAGGAC	AGTAGGGAAT	27900
TGTTTCATCGA	CTCCGAGGAC	TGAAGCTGCA	TGTTCTGGAG	TTGGAAAGAC	TATTTTCGTTG	27960
ATTTCTTCAA	AGTGTTTCATC	ATTCATGTGA	ATGTGGTAGT	CTAACTTGAA	ACGATTATAG	28020
ATAGAACTAT	AGTATTCAAG	GTTTGATAA	TTTGCGTTGA	TATATTGTTT	TGGGATGTAG	28080
GATGTATGGT	AGATATAAAC	GACACCGTTT	GATTCGCGGA	TACGTTCAAT	CTTGTAGTAG	28140
AATTGATCGC	CGCGTAGACC	CAATTTTTC	AAGTAAACAA	GCTTGTTTCC	GCGTTCAATT	28200
GAAAGAACAG	TTACCTTATC	ATCTTTAGCA	TTGAAGAGTT	CAATATCTGA	AAACTCTACA	28260
AGCTTGTGTT	TGCGTGCACG	TGAAACGAAG	GTTTCCTTTT	CTTGTTGGCG	GACAATATAG	28320
CCATCTTTGG	CAAGGTCGTT	TAAGGCGCGA	ACAACTGTGA	TAGAGCTGAC	ATCGTACATT	28380

677

GAAATGAGTT CTGCTTCAGT GTAAAATTTA TCTCCACTGC TAAACTGCCC AGAGATGATT 28440
TTATTTTTTA ATTCGTCTTT TATGTATTGA TGG 28473

(2) INFORMATION FOR SEQ ID NO: 84:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 6749 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 84:

CCTGATGGGT GGTATGCGAG GATACAGTTC TGAAAATCGC CGTTACTTAA TTAATGGACG 60
CGAAGTCACA CCTGAGGAAT TTGCTCACTA TCGTGCGACT GGTCAATTAC CAGGAAATGC 120
AGAAACTGAT GTGCAAATGC CACAACAGGC ATCAGGTATG AAACAAGGCG GTGTCCTTGC 180
AAAAC TAGGT CGAAACTTAA CAGCAGAAGC GCGTGAGGGC AAGTTGGATC CTGTTATCGG 240
ACGAAACAAG GAAATTCAAG AAACATCTGA AATCCTCTCA CGCCGCACCA AGAACAATCC 300
TGTTTTGGTC GGAGATGCAG GTGTTGGTAA GACAGCAGTT GTCGAAGGTC TAGCGCAAGC 360
CATTGTGAAC GGAGATGTTT CTGCTGCTAT CAAGAACAAG GAAATTATTT CTATTGATAT 420
CTCAGGTCTT GAGGCTGGTA CTCAATACCG TGGTAGCTTT GAAGAAAATG TCCAAAACCT 480
AGTCAATGAA GTGAAAGAAG CAGGGAATAT TATCCTCTTC TTTGATGAAA TTCACCAAAT 540
TCTTGGTGCT GGTAGCACTG GTGGAGACAG TGGTTCTAAA GGAAGTTCGG ATATTCTCAA 600
GCCAGCTCTC TCTCGTGGAG AATTGACAGT GATTGGGGCA ACAACTCAAG ACGAATACCG 660
TAACACCATC TTGAAGAATG CTGCTCTTGC TCGTCGTTTC AACGAAGTGA AGGTCAATGC 720
TCCTTCGGCA GAGAATACTT TTAATAATCT TCAAGGAATT CGTGACCTCT ATCAACAACA 780
CCACAATGTC ATCTTGCCAG ACGAAGTCTT GAAAGCAGCG GTGGATTATT CTGTTCAATA 840
CATTCCTCAA CGTAGCTTGC CAGATAAGGC TATTGACCTT GTCGATGTAA CGGCTGCTCA 900
CTTGGCGGCT CAACATCCAG TAACAGATGT GCATGCTGTT GAACGAGAAA TCGAAACGGA 960
AAAAGACAAG CAAGAAAAAG CAGTTGAAGC AGAAGATTTT GAAGCAGCTC TAAACTATAA 1020
AACACGCATT GCAGAATTGG AAAGGAAAAT CGAAAACCAC ACAGAAGATA TGAAAGTGAC 1080
TGCAAGTGTC AACGATGTGG CTGAATCTGT GGAACGAATG ACAGGTATCC CAGTATCGCA 1140
AATGGAAGCT TCAGATATCG AACGTTTGAA AGATATGGCT CATCGCTTGC AAGACAAGGT 1200
GATTGGTCAA GATAAGGCCG TAGAAGTTGT AGCTCGTGCT ATCCGTCGTA ACCGTGCTGG 1260

678

TTTTGATGAA	GGAAATCGCC	CAATCGGCAA	CTTCCTCTTT	GTAGGGTCTA	CTGGGGTTGG	1320
TAAGACGGAG	CTTGCTAAGC	AATTGGCACT	CGATATGTTT	GGAACCCAGG	ATGCGATTAT	1380
CCGTTTAGAT	ATGTCTGAAT	ACAGTGACCG	CACAGCTGTT	TCTAAGCTAA	TTGGTACAAC	1440
AGCAGGCTAT	GTGGGTATG	ATGACAATAG	CAATACCTTA	ACAGAACGTG	TTCGTCGCAA	1500
TCCATACTCT	ATCATTCTCT	TGGATGAAAT	TGAAAAGGCT	GACCCTCAAG	TTATTACCCT	1560
TCTCCTCCAA	GTTCTAGATG	ATGGTCGTTT	GACAGATGGT	CAAGGAAATA	CAGTAAACTT	1620
CAAGAACACT	GTCATTATTG	CGACCTCAAA	TGCTGGATTT	GGCTATGAAG	CCAACTTGAC	1680
AGAAGATGCG	GATAAACCAG	AATTGATGGA	CCGTTTGAAA	CCCTTCTTCC	GTCCAGAATT	1740
CCTCAACCGC	TTTAATGCAG	TCATCGAGTT	CTCACACTTG	ACTAAGGAAG	ACCTTTCTAA	1800
GATTGTAGAT	TTGATGTTGG	CTGAAGTTAA	CCAAACCTTG	GCTAAGAAAG	ACATTGACTT	1860
GGTAGTCAGT	CAAGCGGCTA	AAGATTATAT	CACAGAAGAA	GGTTACGACG	AAGTCATGGG	1920
GGTTCGTCCT	CTCCGTCGCG	TGGTTGAACA	AGAAATTCGT	GATAAGGTGA	CAGACTTCCA	1980
CTTGGATCAT	TTAGATGCTA	AACATCTGGA	AGCAGATATG	GAAGATGGCG	TTTTGGTTAT	2040
TCGTGAGAAA	GTCTAAGACA	GAATTTTGAG	GATAAAAAAG	AAGGAGCCAG	CTGAAAAAAA	2100
CTGGTTCCTT	TTTAGGTACG	ACAGGCATGT	CGTATAGTAG	AAGTGTATTA	TTCTAGTTTC	2160
AATATACTAT	AGTAGCTCAG	AAGTCGGTAC	TTAAACGTGC	TATATCAAAA	CCAGTCCTGG	2220
AAAAACGTGG	ACTGGTTTCG	TGTTTGGATT	ATTACCTTGA	ACGACATGCG	TTAAAAGTTA	2280
GTTGAACCGC	CGTATGCCGA	ATGGTACGTA	CGGTGGTGTG	AGAGGGGCTA	GAGATTATCC	2340
CCTACTCGAT	TTTAAATCAC	ATGACGTTCA	AAGGCATCAT	CTGAAATCCC	TTGTTCCAAG	2400
ATGAGTTTTG	CCCATTCCTT	AGCAGAGAAG	AGGCTGTGGT	CCTTGTAGTT	TCCGCAAGAT	2460
TCGATGGTTG	TCCCTGGGAC	ATCTTCCCAA	GTAGTAGTTT	CAGCGATTTC	CTTGAGCGAA	2520
TCCTTGATAA	CAGCTGCGAT	TTTAGCACTG	GTGTGACGTC	CCCACATAAT	CATGTGGAAG	2580
CCTGTGCGGC	AACCAAATGG	TGAACAGTCA	ATCATGCCGT	CAATGCGGGT	ACGGATGAGT	2640
TTGGCTAAGA	GGTGCTCGAT	AGTGTGAAGG	CCGGCAGTAG	GGATAGAGTC	TTCGTTTGGT	2700
TGCACCAAGC	GAATATCATA	ATTGGAGATG	ATGTCTCCTT	TTGGTCCTGT	TTCTTCCCCA	2760
ATCAAGCGAA	CATAGGGTGC	TTTGACAATG	GTGTGGTCAA	GTTCAAAACT	TTGACAATA	2820
ACTTCTTTTG	ACATGGTAAA	TCCTTTCAGT	TTTCTTCTCT	CATTATATCA	TAAAGGTTGC	2880
TCCTGAGACA	GAGAGAAAAC	CTCTCCGAGG	CTGGAGAGGT	TGAAATCTTT	ACTTACGATA	2940
TAAGCGGTCG	TATTGGTAGT	ATGGGTCAAA	GGTTACGTTG	ATACCCAGTT	TACGAAGGAC	3000
ATTCTTGTCT	TCATCAGTCA	AGATGATGGT	TGAGTGGGCT	TCGCTTCCTT	TGAGGTTGCC	3060

679

GAGTTCTTCC	ATAGCGCGGG	CAGCATCAGG	ATTTTCTGTA	GCTGTGATAG	CAAGTGCAAT	3120
CAGGATTTCA	TTTGAATGAA	GGCGTGGATT	GCGGCTACCG	AGATGATCGA	TTTTAAGACC	3180
TTGGATTGGC	TTAACAACTT	CAGGCTCGAT	TAGTTTTACT	TCTTTAGCGA	TGTCAGCTGA	3240
TTTTTTGATG	GCGTTGATCA	AGGCAGCGGC	TGTAGGACCA	AAGAGTTCTG	AGTTCTTACC	3300
AGTGATGATT	TCCCCATTTG	GCAATTCAAA	GGCTAGGGCT	GGTCCACCAG	TTTCTTCTGC	3360
TTTTTTGGCGC	GCAACGACAG	CAACCTTACG	GTCTGCAGGT	GTGATACCGA	GGTCGTTCAT	3420
GAGCAACTCA	ATTTTCTTGA	CGGCAGCTTC	GCCAACTTTT	TCAGCTTTGA	AGTCAAGAAC	3480
TGTTTGATAG	TAACGGCGGA	TGATTTCTTG	TTTAGAAGCT	TCGACAGCGG	CCTCGTCATC	3540
TGTAATAGCG	AAACCAACCA	TGTTGACACC	CATATCTGTC	GGTGAAGCGT	ATGGTGATTT	3600
TCCGAGAATA	CGTTCCAACA	TGCGTTTGAG	CACTGGGAAG	ATTTTCGATAT	CACGGTTGTA	3660
GTTGACAGTG	GTTTCTCCAT	AGGTTTGAAG	ATGGAAGGGG	TCAATCATGT	TGACATCATC	3720
AAGGTCAGCT	GTGGCAGCTT	CATAAGCCAA	GTAACTGGA	TGATGAAGGG	GAAGATTCCA	3780
AACAGGGAAG	GTTTCAAATT	TAGCGTAGCC	AGATTTGATG	CCATTGATTT	GGTCGTGGTA	3840
CATATTGGAC	ATACACGTTG	CCAATTTTCC	AGAACCAGGT	CCAGGAGCGG	TTACGACAAT	3900
CAAGTTGCGA	CTGGTTTTGA	TGTAGTCGTT	TTTGCCCATG	CCTTCTGGGG	AAATGATGTG	3960
ATCCATATCC	GTCGGATATC	CTTTGATTGG	ATAATGAAGA	TAAGAATCAA	TTCCGTTTTT	4020
CTCAAGTTGA	TTGCGGAAGG	CATCTGCAGC	GGGTGGCCA	GCGTATTGTG	TAATGACAAC	4080
GGAACCAACA	AAAATCCCTA	ATTCATTGAA	TTTATCAATC	AAACGAAGAA	CTTCTTGGTC	4140
ATAAGAAATG	CCTAAGTCGC	CACGTGCTTT	GGAATGTTCA	ATGTTGCTAG	CATTAATGGC	4200
AATCACAACC	TCAACCTGCT	CTTTCAATTC	TTGCAAGAGC	TTGATTTTGT	TGTCAGGTTC	4260
ATAACCAGGA	AGGACACGAG	CAGCGTGGA	ATCTTCTAAC	ATTTTACCGC	CAAACCTCTAA	4320
GTAGAGCTTG	CCGTCAAATT	GGTTAATGCG	CTCCAAAATA	TGGTCGCGTT	GTAAATTCAA	4380
ATATTGTTCA	GAACATAAAG	CTTGTTTTTT	CATTTTTTTA	CCTCTGGACT	CTATTATAAT	4440
AAAAAATTGG	AAGTTAGGAA	ACTACGGAGC	TAAAAAAGAA	ATTAAAAAGA	TTAAGCAAAC	4500
GCTTGACACAA	AATTTTAAAA	AGTGCTATCA	TAGACTATAG	ATTATGAAAA	TAATGAGGTA	4560
AACAGATGCA	AGAAAAATGG	TGGCACAATG	CCGTAGTCTA	TCAAGTCTAT	CCAAAGAGTT	4620
TTATGGATAG	TAATGGAGAT	GGAGTTGGTG	ATTTGCCAGG	TATTACCAGT	AAGTTGGACT	4680
ATCTAGCTAA	GCTAGGAATC	ACAGCAATTT	GGCTTTCTCC	CGTTTATGAC	AGCCCTATGG	4740
ATGATAATGG	CTATGATATT	GCTGATTATC	AAGCGATTGC	GGCTATTTTT	GGAACCATGG	4800

680

AGGACATGGA	TCAGCTGATT	GCAGAAGCTA	AGAAGCGTGA	CATTCGTATC	ATCATGGACT	4860
TGGTGGTCAA	TCATACCTCA	GATGAACATG	CTTGGTTTGT	CGAAGCCTGT	GAAAATACTG	4920
ACAGCCCTGA	GCGAGACTAC	TATATCTGGC	GCGATGAACC	CAATGACCTA	GATTCTATCT	4980
TTAGTGGGTC	TGCTTGGGAA	TACGATGAAA	AGTCAGGTCA	ATACTATCTC	CACTTTTTC	5040
GCAAGAAACA	GCCGGATCTC	AACTGGGAAA	ATGAAAAACT	TCGCCAGAAA	ATTTATGAGA	5100
TGATGAACTT	CTGGATTGAT	AAAGGTATTG	GTGGTTTCCG	TATGGATGTT	ATTGACATGA	5160
TTGGCAAAAT	TCCTGACGAG	AAGGTAGTCA	ATAATGGTCC	TATGCTCCAT	CCCTATCTCA	5220
AGGAAATGAA	TCAGGCGACC	TTTGGAGATA	AGGATCTCTT	GACAGTAGGG	GAGACTTGGG	5280
GAGCAACTCC	AGAGATTGCC	AAGTTCTACT	CTGATCCAAA	GGGGCAAGAA	TTGTCTATGG	5340
TCTTCCAGTT	TGAACATATC	GGTCTTCAGT	ATCAGGAAGG	TCAGCCTAAA	TGGCACTATC	5400
AAAAAGAGCT	GAATATCGCT	AAGTTAAAAG	AAATCTTCAA	CAAATGGCAG	ACAGAGTTAG	5460
GAGTTGAGGA	CGGCTGGAAT	TCCCTCTTCT	GGAACAACCA	TGACCTCCCT	CGTATTGTCT	5520
CAATCTGGGG	AAATGACCAA	GAATACCGCG	AAAAATCTGC	CAAAGCCTTT	GCAATCTTAC	5580
TTCATCTCAT	GAGAGGAACT	CCTTATATCT	ACCAAGGTGA	GGAGATTGGG	ATGACCAACT	5640
ATCCGTTTGA	AACACTGGAT	CAAGTAGAAG	ATATTGAATC	TCTCAACTAT	GCGCGTGAGG	5700
CTCTTGAAAA	AGGTGTTCCG	ATTGAAGAAA	TCATGGACAG	TATCCGTGTT	ATTGGACGTG	5760
ACAATGCCCC	TACCCCTATG	CAATGGGACG	AGAGCAAAAA	CGCTGGTTTC	TCAACAGGTC	5820
AACCTTGGTT	GGCGGTTAAT	CCAAATTACG	AGATGATCAA	TGTCCAAGAA	GCGCTGGCAA	5880
ATCCAGATTC	TATTTTCTAT	ACCTATCAGA	AACTGGTCCA	AATTCGCAAG	GAGAATAGCT	5940
GGCTAGTTTC	AGCTGACTTT	GAATTGCTTG	ATACGGCTGA	TAAGGTCTTT	GCTTATATAC	6000
GTAAGGATGG	CGACCGTCGC	TTCCTAGTTG	TGGCTAACTT	GTCCAATGAA	GAGCAAGACT	6060
TGACAGTAGA	AGGAAAAGTC	AAATCTGTCT	TGATTGAAAA	CACTGCGGCT	AAAGAAGTAC	6120
TTGAAAAACA	GGTCTTGGCT	CCATGGGATG	CTTTCTGTGT	GGAATTACTA	TAAATATTTT	6180
TTGCAGAAAA	ATTTAAAATT	GAAATCGTAT	AAAAACAAGG	GAGGACTGTA	TAAAAGACAG	6240
AAATCCTTTG	TTTTTTATAA	CCAAAGTTTA	TAAACTTTCA	TTCTTGAAAT	TCAATTAAC	6300
TTACAAATTC	CCACTATTAA	GGAGAAAGAA	GATGAACATA	AAGAAGCGTG	TCCTTAGTGC	6360
AGGCCTGACT	TTTGCATCTG	CTTTGCTTTT	ACCCAAATCA	TTCATACCTC	TCTCAACTAG	6420
ATGTAACCTA	CAAAACCCCT	GACCTCATGA	GCCACTTTCT	TCCTCCTCAT	GAGGTCAGTT	6480
TTACTTTCTG	CTGTTCCAGT	ATCGTTTTTC	CTCGCTAGAT	TTCTCAGAAA	GGGCAGACTC	6540
CTCCCTTGGT	GCGTCACACG	ATTTTTTTCAT	CTCGACTGTT	CTTTAATGCA	TCATTAACGA	6600

681

CGCTTTTCTT CTAGGTGGTT CATAAGGAAC AGGAAGATTC AGGTTGACTT TTCTAATCCT	6660
AGAATAAAGT GCTGAAAACA ATTCGGAATA GGCATAGAGA CTAGACAATT TGAGGAGCTG	6720
CTTGCGTCCT GTTCGAACAC ATTTTCCGG	6749

(2) INFORMATION FOR SEQ ID NO: 85:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1842 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 85:

TCTACCCATG GACTTTGAGG CATTCAATTGT TCCATCTTCT AGTGGCGAAT CTTTGTGATAC	60
AAACGATTCA ATTCACTTGG ATAGTGAAAC TCTCCCGCAA ACATTTTTCT GGTAACTCA	120
ATCCAGCTGA TATTTCTTTC AGCCAAAATA ATGGACAAGT TCTCCCAAAA TCGTTCAGCC	180
ATATTGCTTC TCCTTTAGTT AGATAAATAA TGTGTTTGCG CCATGTAAAT CAATTGTTTC	240
GTATCTCTTG GCAATAGAGC TCTAGCCTCT TCCAAATTCA GACTTGGATA AACTCGCTTA	300
TTTGAAACCG CAAGAGGAAG TCTGATGGTT AGTTCAGGAT TTTTAAAT TATCTCAACG	360
AAATCCGTTA ATCTTAGATT GTCACGGTTC TTAAATCGTA ATAAATTGGG AGATAAAAAC	420
TCAAAACAAT CTGAAGAATA GCTCATCATC TCAATTAATT TGTCCTTTGT CATTCAGAA	480
ACTGAATGAC AAGATACCTC TATGCCATAG TTTTGGGAAGA AATCTAAAAG AAGTTGATTT	540
CTTTGTCTAT TTTTACTTAG ATAGAGATCA ATCATGGGAG ACCTCCCAA GATTCGGTTC	600
CATTTGATAT TCTGACACGA TTAAGGAATC TAATAAATTA AGGAATCTAA TAAATTTGCG	660
AAGTTAATCG GTTTCTTGTC TTCATCATAA GCTTTTACAG TTAAGTTGGT TGTAAGTATT	720
CCCTCTTTTC CCTCGGCTCG ATAGCCTTGT CCATATAAAA CAAAACGAG ATTTTGATGA	780
TCATCTACAA AGGCATCAAC CCCATTCTTT ATGTCTTGAC TTTCAAGGAA TTCCATAACG	840
TTTTGAAGAT AGGATTCGTA AAATAGTGGG TAGTTATGTT TTTTATGGTA ATCATCTAAA	900
AATGTCACTT CAAACTCACA TGGAGAGTAA TTTTGACTTT GAACAGCCTA AAAGTGCCAT	960
CAAATTTGAA TTGGAATAAA TCAAATAAAT AGCCCCATCC TCATCAATCC AACCTTTGCT	1020
CAAAGACAAC TCCAACCGAT CTTTTAAAAC TGAGTAAACC ACCTTAACCT CCAGTTTCAT	1080
ATTCTTATAC CGTTCACTCT CAAATAAAAAG TTTGGGGAGC TTATAATAAC GCTCTGATGT	1140
CTGATATTGA TTAGCGGTAA TACGCTTCAT TATTGTCCCT CCAAGACTAA AATTCCAACA	1200

682

TTTCCAAATT CATCAAATCG GATTAAACCT ACTTGTTCCA TTTCATCAAC TAACTGAGTT	1260
GCTTTTACCC AAATCATTCA TACCTCTCTC AACTAGATGT AACTTACAAA ACCCCTGACC	1320
TCATGAGCCA CTTTCTTCCT CCTCATGAGG TCAGTTTTTAC TTTCTGCTGT TCCAGTATCG	1380
TTTTTCCTCG CTAGATTTCC TCAAAAGGGC AGACTCCTCC CTTGGTGCGT CACACGATTT	1440
TTTCATCTCG ACTGTTCTTT AATGCATCAT TAACGACGCT TTTCTTCTAG GTGGTTCATA	1500
AGGAACAGGA AGATTCAGGT TGACTTTTCT AATCCTAGAA TAAAGTGCTG AAAACAATTC	1560
GGAATAGGCA TAGAGACTAG ACAATTTGAG GAGCTGCTTG CGTCCTGTTT GAACACATTT	1620
TCCCACCACG TGAAGAAAAA GATGGCGGAA GCGTTTGATT GTTAAAGTTT GGAAGTCACC	1680
TCCAGCTAGA TGTTTGAGAA AAAGATAGAG ATTGTAGGCG ATACAGCTCA TCATCATACG	1740
AACTTCGTTT TTGATTAAGG TTGAACTATC CGTTTTATCG CCAAAAAATC CCTCCTTCAT	1800
CTCCTTGATG AAATTCTCGG CTTGACCACG TCCACGATAA AG	1842

(2) INFORMATION FOR SEQ ID NO: 86:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19390 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 86:

TCATCTTTAT CTCCTCGAAA TTTTCTAATA TAGCCATTAT AACAGAATTT TGTGAAAATT	60
CCTATTATAG TAAATCACTA TTTCAGTATA AAAAGAAAAA ACGAATCAGA CGATTCGCTC	120
TTCTTAAAAT CTGAAAATAG CTTTCCAGAA AGGATTAGCC GATTTTTTGC AGATTGAGCA	180
CTGCATCGTG ACTCATCAAG ACTTGACCAT ACTCTTGTA GACTGAGCGA CTGATATCAC	240
TATCGTCTGC AAATCGCGC ATACGGGCCA ACAGCCAAGC TGGATATGGG CTTGGATGAT	300
TTTCAATATC CACTAAAATG GTCAAATAAT AGCGCTCGTT CATTTTGTAG AGTTCAGAAG	360
TTTCCATTTT AAAAGTCACT GTCTTGGCAA AAGCTACCAA GTCAGCCAAC TTAGCAAAAG	420
AAAGGATGTA GTAGATGTAA GGTTCTTTCT TACTCTCAGC TTCTTGTTCA GCCTGCTCTT	480
GCTCTTCTTC CTTGACTTCA ACTTGCTCAA GAGATTGAAT GGCTTCGATA TCATCCTTGG	540
TTTTGTCTGC GATGCTTTTT TCCAGGGTTT TGATAAATTC ATCTGGAGAC ATTTGAGCCA	600
ATTCTTCCAT ATCTGGCAAA TCCGATAAGT CTTCAAAATC TAGATTTTGG TCAATCTTTG	660
ACTTGGTCAC AAAGACATCT ACCTTATCAG GTTTTGGAGT CACACGGAAG CTCAACATGC	720
CTGTATCCAG AAAGCTATCA GGCATCTCTA GCTCATCCAA GATAGCATAA AAGAACTCTT	780

683

CTGTTTTTTC	TTGAGGAACG	AGAAAGTCAG	CAATCTCCAT	TCCACGATCC	ATCAAATCCT	840
CTAAAGATAT	CGTGATTTTT	AAAGTTGTAT	CACTAATTTG	TTTCATTTTC	ATTGCTAGTA	900
ACCTCATACT	TTCAGTTCTA	TCTATTATAC	TAGATTTTTA	CGATTTTATC	AAAAGAAGGC	960
TCCTCTATAC	GGATAGATTT	TCCCTAGGGT	CTTTCTATAG	GAGACTCCAA	AAGAAAATTT	1020
CTGCAGACAG	ATAGAAAAAG	CCTTCAAAAT	CGGCTAAGAG	CCGACTTTGA	AGACCTTATA	1080
CATCAGAATA	CTTATAATTT	AAAGGTTGCT	ACACCGAGGA	TAGAACGATT	TAAGTTTCTG	1140
AGAATTTGAA	GACTTTGCTC	AAATTTCTTA	TAACGAGTCA	CTCCGTACTC	TTCAACAAGA	1200
AGGACTGTAT	CTCTTTCCAA	AAGAGATGAT	ACATCCTGTA	AATCTACAAA	ATGCATTCCCT	1260
TTTAAAGCTT	CTTGACTCTG	TTTCAATTTA	TCTAAGATAG	CTTTATTTGA	GCTAACGATG	1320
GTCAATTCCT	GTCCAGTATT	TTTGTATGAC	AAAACATCTG	CTAGGTTAGC	AATTGTTGTA	1380
ATCTCTGTTA	CAAAATCAAT	TTGATACTGA	GAAAAATCAC	CTACTCTATT	GATTGTTGGA	1440
TTAAAGAGAT	AAACTAACAC	ATTTCCCATC	ACAACCAAAA	TCACACAAAC	CACTCCAATA	1500
ACAACTAAAC	GAAGAATCAG	ATTTTTCACA	TTTAAGCCAA	GCGCTGTTTC	ACCATTTGCG	1560
TTCAATTCTT	TAGAGTTGAT	GGTTTCCAGT	TTTTCAATTT	TCACATTTGC	ATAGGCATGT	1620
TTAAATTTCT	CAATCAACCC	ATCAATTTTT	TTCTCTAACA	AGTTATTGGC	ATCTTTACTT	1680
GATGTCAAAA	TTTTCACACC	AACCCCTGCA	TCGTCAATCA	TATAGTAGAC	GGTCAATTTT	1740
TTCCACCAAT	AGTCATTCGT	TGAATTTTTT	AAGGTTGTTT	CTGTCGTGTC	TAATTCACTG	1800
GCAATTTTTT	TCAACTCACT	GGGTCTTACA	TCATTGAAAA	GATAAGCTCC	ATTCAAATTA	1860
CCATCAATCA	ATTTCCCATATA	AAAATCACTA	TAACCACCAA	TTTGATGATT	CAAAATCGTT	1920
TTGTCCGACT	CTTTTGGAGG	AGTGATTTTA	TAGATAAGAT	AAGTTGAATA	ACTTGTTGTA	1980
TCTTTGACAG	TGTTTTTATT	CCTAACTGCT	TTAATTGTAA	ATGGTACAGC	AATGAGAGCA	2040
AATAAAGCGA	TGAGAGCTAA	AATATTTGCT	TTTCGCTTTT	TATAAAGATT	TGCAAACAAA	2100
TCAGCTACTG	AATAATGTTT	AAACATGATT	TTTTTCTCCT	TTGTTTAGTA	GATACTAGTT	2160
TTCCTTTGTA	AGCATTTTTG	CTACAAATAT	AATCACAAGA	ACAATTCCCC	AGAATTGCAT	2220
TGTAAATAAA	TTGAAGAAAC	TTTCTGAAAA	GCTGCTTCTT	GGCATAAAGA	ATAGATTATT	2280
CAAGATGAGT	AGGGATAAAG	CAAATAGGAT	TGTCCTTGAG	CGATAGGCTA	CTTGCAGCAT	2340
GGCTATAAAT	AATACGCCGA	GTAAGAACT	AAGCAGAAAG	ACTCCAATCA	TACCATAGTC	2400
GGTATACAAC	TCCATGATAT	AACTACTTCC	GATACCATGC	CCTTTCAAGT	ATTCCTTGTT	2460
CAAGACAAGA	TAGGATAGAT	TGTGGGCATA	ACTATTACTA	TCAATAGCTA	GTTCCACACT	2520

684						
ATTGGTTGTA	TGTTCAAAGG	CTTTTCCTCC	GAAAATGGCT	CCCAAACCTCC	CCCTTGCAAA	2580
ATAATCAAGA	ACAGGACCAA	AAGTAAAATT	ACGGAAATCT	CGGTAAGGGA	GGCTACTGTT	2640
AAATAGAAAA	CCTCGAGCCA	GAACACCAA	ACTAGTCCCT	TGTTTATAGA	TAAAGTCAAG	2700
TAAGATATCC	CAGAAACCTG	TATGGGAAAC	TTGGACATTA	TCCCGTACAT	AATTGAGTAC	2760
TCCCATCGCT	AACATGAGAA	TAGGAGAACC	TACAAAAATC	GCTAACTTTT	CTTTAAACCC	2820
AATCCATTTT	CCTTTTTCAG	TTTGCTCCCG	CATAAAGTAA	TAAACAAAAG	CAAATmAAAT	2880
ACTTAAAATA	AAGGGATTTC	GTGTCCCAAT	TGCCAAATGA	ATAGTATTAG	CTGCAATAAA	2940
GGAGACAAGC	ACTGCTGTGG	CCTGCAATTT	CTTTGGCTTG	GTTGCCAGAT	ACATACACAT	3000
TGCATAGACC	GTAAAGGTAG	ACAAAATGTA	GGTAAAATAA	GGCAGTTTAC	TTTCAAATTT	3060
TGCATAGTAG	GCATAGTAGG	AAGTCTGCAA	ACGATACAAG	AGCCGTTCAA	ATAACCGAAT	3120
GAAATAGAAA	GGATAAGTTA	GAAGAAAAAC	TCCTAGTGAT	ACAAAGCGTA	ACCGCTTGAT	3180
ATAAACCTCT	TTTAGAGAAT	TTCTATATT	TGCTACTTTT	ATTTTCTTCC	TAGCTATGAA	3240
GTAACGAGCC	AGAATGCCTC	CTGTGGTCAA	GCCCAGAATC	GAAATCATGA	CAACTATAAA	3300
GGCAAAACGA	TAGGCTATTG	GATGATAGGT	ATCCAAAGCA	CCATCCCTAA	AATAATCAAT	3360
GGTCGGTCTT	GATACCAGAA	ATACAAAAAT	GGTTAAATAG	AAAATAAAAT	GGATTAAGTA	3420
ATACTTGATA	TCATTCCAAC	AAGCAATTAA	GCTACTAACC	AACAAGAACA	ATAAAGTAGA	3480
AAGTAAGCTA	ACATTATTAT	TATTAAACAG	ATACACAATT	CCACTTACTA	GCGTCAAGGC	3540
ATAACTGACT	ATGGTCAAAC	TAAATAATAA	TCGTTTCCCA	TCAATCACTT	GGTCACCCCC	3600
GTTCTAATGT	AATTTTITAG	ATTTTITCAAT	ATTTTITCAGT	AATAAGAATC	GATATAAGGA	3660
AATATTTATG	AATAGGGCCA	AAGCACTAAT	TCTTCTCCCC	TTACGGAAAA	TTGGATTCTT	3720
AGAAATAGCA	AAGGCATGGC	CTTTTAAAAA	ACGATGAATC	TGAGAATAGG	CTTCAAACCTG	3780
TTTATACTGA	TCATCTAGCA	ACATCTTATC	CAGAATAAAG	AAGTGGGCAT	AGGCCAATCT	3840
GAAAAAAGCG	ACCTCTTTCA	AGTCAGGATA	GTTTTTCACA	ACTTCATTAT	AAAACTTTITG	3900
GTAGATATCA	ATATAGGCTA	AATCCTTCTC	TGCATAGGGT	TTGGTCGTAA	TACTATCCCC	3960
TCTATGGAAA	TAGTAATAAT	AGGGTTTAGT	ATTAACCACA	TACTTCTTGG	CCAACCTTGAT	4020
TAAATCAAAA	TGGTAATAGG	CATCTTCGTA	AATCAACCCC	TTAGGAAAGG	ATAGGGCAGT	4080
TGCAATCTGT	CTCTTGATTA	GCTTATTGCA	AATCGTCCCA	GGTATTTTTT	CACCTATGAG	4140
GTATTCCTTT	AGAAATGTTT	GAGAATCACA	GACAAAATAG	TCATCCTGAT	TGGCTGACTG	4200
TGGGCTTTCA	TCATTAGCAT	AGACATTTCAT	GACACCACAG	CTCGAAACAT	CCGCATCTTC	4260
TTGAACTAAT	TGCTCATATA	AGCTCTGAAT	CATTTCTGGA	TGGATATAAT	CATCTGAGTC	4320

685

AATAAAAATC	AGATAATCCC	CGTGAGCCTG	CTTCATCCCA	TCATTTTCGTG	CTTGCGACAA	4380
TCCTTCG TTC	TTTTTATGAA	GCACTGACAC	CCTGTCATCT	TG TTCAGCGA	TTGAATCACA	4440
CAAGCGACCA	CTTTCATCTG	TTGCACCATC	ATCAACAAGA	ATAATTTCCA	GATTTTGATA	4500
GGTCTGCTTC	TGAATGGAAG	CTATCGATTT	TTCTAGGTAC	TGCGCCACAT	TATAGACTGG	4560
CACAATCACA	CTAATTAATG	CAGTTTCCAT	GCTACTCCTC	TAATAGTTTT	TCTACTTGTT	4620
CGATTTGTTT	TGTAATTGTA	AATTGTTGAA	TGAATTGGCT	AGCCTCATCG	ACATCAAAGT	4680
TTGAGGCAGA	AGTCATGTAA	TTAGTAATCG	CCTGAGCTGC	CTCTTGATTG	CTCTCAATGA	4740
TTTGTCCAAA	TCGTCCTTCT	TGGGATAATT	CCTCAGCCCC	TCCAACGTCC	G TAGAGATAA	4800
AAGGGAGTCC	CAGACTCAAG	GCCTCCACAT	ACACTCCAGG	AAAACCTTCT	TGTTTAGACA	4860
TAGACAAAAG	AAC TTTTCGTC	TGAGATAGAT	ACTGATAAGG	ATTTTTTTGA	TAACCAAGGA	4920
AATGTACATA	GTCCTCAATC	CCATACTCTT	TGACTCGTTT	TTTCAGTTCC	TCTTCCATAT	4980
CACCAGCCCC	GATAAAATAG	AGATGATAGT	TTTTTCCCTC	TTGGTGTAAT	AATCGTATCA	5040
CTTCCACTAC	ACGGTCAGAA	CCCTTATTTT	CCTCAATCCG	TCCGATAGTA	CAGATACTTT	5100
GAGGAGCAAT	CTCGATATCG	ATCTTCTCTT	GAGATTTTTC	TAGAATAGTC	TGAAAAATCAT	5160
ATCCATTGTA	GATTGTCTGT	AATTTAGAAG	TATAATCTGG	ATAAACTTCC	TTGATAGAAT	5220
TGCTGGTCTT	TTTTGAAATC	CCTACAATTG	TATTCGCAGC	ATCCA ACTGG	CTTCTATGTG	5280
ATTCTCTTTT	AGAGCTATCC	TTAAGAAGTT	CTTCAATACT	TCCATGAATC	CAAGATATCT	5340
TCTTGACTTC	TCTTCTTTTA	GAGAACAACA	GTGGTG GATT	CATAATGGTA	AAAGAACTT	5400
CAACATCATA	ATCATCTTTT	ACAAGCAAAC	GACGAGTCAG	TCTTGGA AAA	TAAATTCTCA	5460
TTCTCCACAA	AAAAGCTCGT	AACCATCTGG	TTTGGCGATA	ATCTTGAAGG	GATTTTAAAA	5520
TGCGTACATG	CTTTGGAACA	GATTCATATC	CCTTGTC AAA	GTGCTCCATT	TCAAGAATAT	5580
CAATATCATA	CTTTTCTGGA	TCCAGATTTG	AAACAATGGT	TGATAGAATC	TTCTCTGCAC	5640
CACCTCCAAG	AGAAAAAGAC	CACATAAAAA	ATAAGATTTT	TTTCTTAGCC	ACCATATTCT	5700
CCCTTG TATT	CTGTATAAGA	CTTATCCATA	TCAGCGATGA	CAGCATCATG	ATGCGGTACC	5760
TGCTTG TCTG	CTGGTGGAGG	CGTCATATAA	TCCCCAAAAG	CAGTTCTGAG	ATAGACATCA	5820
TAGCCGATTG	GAATAGGCAT	CTCTGTT CCT	TCAAATGGCA	AGAAAAGATT	GTCTTCAAAA	5880
GATGTGATTG	GGTACTTGTT	TCTCATGTAG	CCAGGACCTG	AGCATAATTC	TGTAATGCCA	5940
TCACAATCAG	CCAAATCATA	CTTAGTCATT	TCTTTCTCAG	CTTTTTTCCA	GATGCGATAA	6000
CGGAGAGATT	TTGGAGTCAA	ACCCAGTAAA	ATGCGACTTC	CCCATTT CAT	GAGATCACCA	6060

686

TGCTTTTCTG GAATAGTTTG CGCACAAAAG AGTGAATAAA TCAAGGCCCA ACGAACCTGT	6120
TTTTTCCGCT CAGCTGGATT TTTCGGATAA TAATCCAAAG GCAAAACATC CAAGGCCAGA	6180
CCATGTGGCA AATCCAAATC CTGCTGATAA GGCTTGATAC AGGTGGTTTT CTTGTCACGA	6240
ATGGTAATAA AAAGATTACG ATCAACAAAA TCCTTGTGAC TCTTTGACAA GAAATAACGT	6300
TCATCTGCAT AACGAGGCCA TAATTCTGCT AATTTCTCAT AATCTTTACG AGGCATAAAA	6360
AAGTCTAGGT CGTCGTCCCA AGGAATAAAT CCCTTGTTTC GAAGGGCACC AATAGCGCCT	6420
CCGCCACAGA GATAACAGAG CAAATCATGT TCTTTACAAA AGGCCACAAA ATATTCAGCC	6480
ATCTCCAGAC TACGAGCCTG AATTGCTTTT AAATCAGTCA TATTGTTTCT TATTCTTTCT	6540
ATCGTATCGT TTCATTATAC CACAAACAAG GGGTGAAAAT CTATTGCAGA CTGTAAAAAA	6600
TCAAAGCCTG ACTGCTATCC AAATAGCTAT CAAACTTTGA TTTTCTGTC TTATACTCTT	6660
CGAAAATCTC TTCAAACCAC GTCAGCTTCA CCTTGCCGTA GGTATAGGTA ACTGACTTCG	6720
TCAGTCTTAT CTACAACCTC AAAACTGTGT TTTTAGCAGC CTGCGGCTAG CTTCTAGTT	6780
TGCACTTTGA TTTTCATTGA GTATTATCTT ATCTTAAGCC CATTTGAGCG AGCTTGTTT	6840
GATATTTGTT TTGATCAACC AGCAGGCCCA AGCCCCATA AACATCATAG GCATCTACCC	6900
AGTCACCCAG TTCTGGAATC GTCAATTTTT CAATACCATT TTTTGCTCCA TCCAAAACAG	6960
ATAAACCGTT TGTTAGGAGG AAAGTATAGG GTACGTTGGT TGAGGTCATA GCAAAAACCT	7020
TTCCAAGAGC TTCAGAACCA GTGAAAAGTT TAGTGGGATC TTTAATTTGC TCTAAAATTG	7080
CTGTTAAAAC TTGTTGCTGT CTTTTTGTAC GGCCGTAATC TGCCTCATCA TCATCACGGA	7140
AACGAGCATA ATTGAGCAGG GTCGAGCCAT TCATCTGCTG TTTTCCGACT TTAATGGTTT	7200
GGGTTGGAGA CTCAGTCTCG GTAGCGTATA AATCATCTCC GACTGTAGCT TCTGTTAGGG	7260
GACGCCCATC CAATGTTGAA AATTGAGCAT CAATCGTCAC CCCATCAGGG AAAAGCGTGT	7320
CAATCGCTGT GGCAAAGGCC TGGAAATCAA CCAAGGCGTA GTACTTAATG TCCAAGTCAA	7380
AATTATCTTT CAAGACTTGG CGAACCATTT CTGCCCCTTT TTGCCCCTCT TGTTCCTCTA	7440
ACTCGTAGGC TACGTTTAAC TTGTTATCTG TCTGTTTTCT ACCATTAATC ACTTGACTAT	7500
AACCATCTAT ATAGACCAA TTATCACGCA TGAAACTGAC TAGCTTCATT TTCTTATCTG	7560
AGCCCCGAC ATTTAATACC ATAATAGAGT CAGTTCGTGT CTCAACACTG TTCTGGCCGA	7620
TTCGACCATC AGTACCCATG ATTAAAATAT TAACTCCATC TCTAGTGTCC TGACCATTAA	7680
AGACTTCTAC TTGAGCTGCC CGGGCATCAG CAGTTTTCTT TGCCTAGCA TCTTGGTAA	7740
CACGCAAAAA CATGAATACC ATGGCCAAAG CCACACAGAC CAAAAGTGAA AAAATCACCA	7800
TAAAAATTCG TTTAAGACGG AGCTTCCGTC TTTTCTTTTT TGGAGGGAAA GAGAGTGCTT	7860

687

GTGATTTGGA TTGTGAGCGA CTCCGGTTCG CATAGCTTGG TAAGTCAACC TGCTCTTCTC	7920
TTTCTTGTTT CAAGCTAGAG CTACTATTTT CCCTAGCAAG AGTTAGCTTT TCTTGCAAAT	7980
AGGCAACTC ATTTTTTTCT CTCTCATTGA GATAGTGAAT ATTTTTTAGC AAATAATCAT	8040
AACGCAACTG CTCATGATGA CTTAAGGGAT TTTCTTTACT CATCTTCTCT CCTTTCCATG	8100
GTCTGATATT GGATAAATAG GATAGGCACC CAGAATTTTA TACTGGATTG CAATCGCTTC	8160
TAATTCTTTT TGGGCAAAGT GGACCAAGTC CTTATCGGTA TAATCCACAT CGATAATGAA	8220
AAAGTATTCA CCCAGTGCTG TCTTGAGTGG ACAACTTTCA ATTTTTGTCA AGTCAATTCC	8280
TCGCCAAGCA AAGGTCGACA GGGCCTTATA AAGTGCACCT GGAAGGTTGT CAGGTAATGT	8340
CAAGGCCAAA CTCATCTTTT CAGTTTGTGC TTGCAAGGGA ATACTAGGCT TTTCAGCTCC	8400
TAGAACCCAG AAACGTGTGA AATTGGCTTC CATTCCTGA ATATCCTCGG CAATCAGTTC	8460
CAATCCATAT TCTTCAGCAG AACTTCTAGG TGCAACTGCT GCAAAGGGCT GGTCTGGATG	8520
TTCGGAAATA AAACGGGCCG CATAAGCTGT ACTAGCTGTT ACCTCGATTT GAGCCTCTGG	8580
ATATTGTTCA TCGATGAATT TCTTTCCTTG AGCCAAGGCC TGTGGATGTG AAAAAATCTT	8640
TTCAATCTTA GTATGGCCTG GAACCACCAT CAACTGCTGA TGAATAGGCT GAACGATTTC	8700
TGCTACTGCT TGGATGTGAG CCTGATGAAA AAGATAGTCC AAGGTTTCAT GAACACTACC	8760
CTCAATAGAA TTTTCAACTG GCACCACAGA ATAGTTCCTT AATCCTTGCT CATAAGCCTT	8820
GATGACATCT GTAATGTTGG CAAAAGCCTG CAATTCCTCA TGAGGAAAAG CTGTCTGCAC	8880
AACGTGGTGT GAAAATGATC CCTTGGGACC TAGATAAGCA ATTTTCATCT TAGTTCCTCT	8940
ATAATTTCTT CTGGGCTTAG CTTGGTCACA TCCAAAACCC GACTAGCCAC TTCCTCATAC	9000
CAAGCCTGTC TTTCTTGGA AATAGCTACT AGTTCTTCCT TGCTATTATT TAGAAAAAGC	9060
GGTCGCTGAT TGTCCCTTATC AGCTGCGATA CGTTGGTAGA GGGTTTCAA ATCTGCTCTC	9120
AGGTAGATGT TATCTGTATT AGTCTTGAGT AAGTCACGAT TTCTCTGAGA AATAACCACT	9180
CCTCCTCCAG TTGACACGAC TTGGTCTGTT TGTAATAAAT CAGCTAGGAC TTCTGATTCT	9240
ACCTGACGAA AGGCTGTTTC TCCCTTTTCA GCGAAAAAAT TCGCAATGGA CATACCTAGG	9300
CGATTCTCAA TCAGAGCATC CATATCAAGG TAATTAGGGT CCAAGCCTCT TGCAATAGTC	9360
GATTTTCCAG CCCCCATAAA CCCTAATAAC ACCTTAGCCA TGAATCAAGC TCTCCAAATC	9420
ATCAAAGAAA CTAGGATAGC TGGTATTGAT GGCTTCTGCA CGGTCAAGCT CCACCTCTCC	9480
ATCTGCAACC AAGAGGGCTG CGATAGCTGT CATCATGCCG ATACGGTGGT CACCAAACGT	9540
ATTGACTCTA GCACCGTGAA GAGCTGATTT TCCTTTGATA ATCATCCCAT CTGCCGTAGG	9600

688

AGTAATATCT	GCTCCCATAC	TATTTAAGGC	GTCTGCCACA	ACCTGAATAC	GGTCTGTTTC	9660	
CTTGACCTTG	AGCTCCTCAG	CATCCTTGAT	AACTGTTACA	CCTTGGGCTT	GGGTCGCAAG	9720	
CAGGGCAATA	ATGGGCAATT	CATCAATCAA	TCGTGGAATC	AAAGCGCCAC	CAATCTCTGT	9780	
TCCTTTCAAG	TCAGAAGACT	CAACAATCAA	GGTAGCAGAT	TTAGCGACTG	GATCGATTTT	9840	
AGTTATTTCC	AATTTTCCAC	CCATGGCACG	AATGACATCA	ATAATACCGG	TGCGAGTTTC	9900	
GTTGATCCCC	ACATTCTGCA	GCACTAGACG	AGAATTTGGA	GCAATCAAAC	CTGCGACTAA	9960	
CCAAAAGGCT	GCACTGGAAA	TATCTCCTGG	TACGACCACC	TTCTGTCCTG	TCAATTTTTG	10020	
TGGCCCCTGG	ACTGTGATTT	TCTTACCATC	CACACTTAAA	TGACCACCAA	ATTGTTTCAA	10080	
CATATCTTCA	GTATGATTAC	GGGTGTA	CTC	TTTTTCGATA	ATAACTGACT	CCCCCTTAGC	10140
TTGTAAGGCT	GCAAACATCA	AGGCTGACTT	GACTTGGGCA	GAGGCAATTG	GCAACTCATA		10200
ATGAATAGGT	CTTAGGTTTT	TCGTCCCTTT	TAAGCGAAGG	GGAGGCAAGT	CTCGTTCAGT		10260
TTGCCCTGAA	ATGCTGACGC	CCATTTTTTT	CAGTGGGAAGG	GTCACACGGT	CCATAGGACG		10320
TTTGGAAGA	CTATCATCTC	CAAACATCTC	TACTTCGAAA	TCTGCACCAG	CAAGGACACC		10380
TGAAATCAGG	CGAATCGAGG	TGCCAGAATT	TCCCATATTA	AGGGCATT	TTT	GTGGCGCTTT	10440
TAAGCCAGCC	ATGCCTACAC	CTTGAATGGT	AATAACCCCA	TCTTTATCCT	CAATTTCAAC		10500
ACCAAGGTCA	CGAAAAACCT	GCATGGTCGA	AAGAACGTCT	TCACCTCGCA	GAATATCATA		10560
AACCTTGGTC	TCACCCTCAG	CCAAACTTCC	AAAGATAATG	GAACGGTG	GC	TGATAGACTT	10620
GTCACCTGGG	ACGCGGATAC	TACCATGTAA	ATGGCGAATG	TTTGTTTTTA	GTTTCATACT		10680
GGACCTCATA	CTTGCAATAC	TTTTACCTAT	TTTATCATAA	AAAGCCAGAA	ATTCCTTAAA		10740
AATTCCTGAC	TTTAGGATCG	TTCTTTTCTT	ATTTTCAGCAA	TTCTGAAACT	GGTTCAAAAA		10800
CAATTTTTTC	AATATCAGAA	AGGTAAATGG	CCAATTGTTG	TTGCTTGGTA	AAGAATTCTG		10860
ACAAGAGGCT	ATTCCTTGA	ATCTGTTTAC	CAAAGCCTTC	CATCTTAGCT	TGGAAGGACG		10920
CATCTGGCAT	TTGACCTGTC	TGTGCTAGTT	TTTGAATTTT	CTCTTGAAAG	GCAAGATAAT		10980
CTGTAAAGAT	TTTGCTTGCC	TCAGCATCTG	CTGCAATCGC	ATCTTTAGCT	GCTTTAACAG		11040
CCTTGATATC	TGGTAATCCG	CGTAGACCGC	GACTGAGTTC	GTTTGCACTA	TCGTAAATAT		11100
TTGACATGTT	CTTCTCCTTA	TTTGATGACG	ACTGTATAGT	CAGTATTTTC	TGTTATGAGA		11160
TGCTCAGCTC	TTTCCAAGTC	TTGAGCATTT	TTAAATGAAA	TTTGTAGGAT	TCCGTGAATA		11220
TCCTCACGAT	TTTCCTCGTT	GATGTGGATA	TTAACCAAGG	AAGTTCCACG	TAGCAGTTCC		11280
AAAATCCGCA	GGATGACATC	TTCTTCATCA	GGAACGTCAA	CATAGAGGTC	GTAAGAGCTA		11340
TCCACACCAC	CACGCTTATG	GATTTCCATG	GTCTGGCGTT	GTTACGCGC	TTGGTTAAAA		11400

689

AAGTTCCAAA	TTTGCTCTTC	ATCTCCCTTA	CTAATGGCCT	GACCAATCGC	TTCCAAACGT	11460
TCCTTGAAAT	CCTCAATTCT	ATCCAGAATG	ATCTCGCTAT	TGGACAAGAG	AATGGAGGTC	11520
CACATTCCCTG	GCTCGCTTTC	CGCAATTCGG	GTCATATCTC	GAAAACCACC	TGCCGCAAAG	11580
CGCCTTGCCA	TCTCATGCTC	TTGAGCATAG	ACCGCAGTCT	GCTCCATGAG	ACTAGAAGCC	11640
AAAATATGAG	GAAAATGGCT	AATCTGAGAA	GTGACACGAT	CATGCTCCTT	GGCATCAATC	11700
TCGATAAAAC	GAGCATGAAG	ACCTGAAAGC	AGATCCTTCA	TTTCCTTAAG	CGTGTCCCTGA	11760
CTTGTCAGGC	TTGAAGGTGT	AAAGATATAA	TAGGCATTTT	CAAAAAGATT	GACATCTGCC	11820
GAAGCAGCCC	CTGTCTTGTG	ACTACCAGCC	ATGGGATGGG	CCCCGACAAA	GCGAACAGAC	11880
TTGCCAGCCA	AATACTGCTC	CGCCGCATCC	ACAATGGTTG	ACTTGGTCGA	ACCAGCATCT	11940
GAAATAATAA	CGCCTTCTCG	CAAATCCAAA	TTGGCCAACT	CCTTAATGAA	AGCAATAGTT	12000
TGTTTGATTG	GCAAGCTGAG	GATAATGACA	TCTGCCAAAG	GAGCAAAACT	AGCAAAATCA	12060
TCCGTTGCAC	GGTCAATCAT	ACCTTCTTTC	AAGGCGATAT	CTCTCGAAGC	TTGACTACGA	12120
TTATAACCTA	AAATTTTATA	ATCTGGATGA	TCGCGTTTGA	TACCAAGTGC	CATAGAGGCT	12180
CCAATCAACC	CAAGACCTGC	GATATAGATT	GTTTTTGCCA	TAGGAACTCC	TTAATAGTTC	12240
TTTGTATAGT	CTCGGTGTTT	GGCTACCGCT	TCTTTTAGTT	CCTCAAGATT	ATCTGATGAG	12300
AATTTTTTCGA	GGATTTCTTG	CGCCAGAACC	GTTGCTACAA	CTGCTTCCAT	GACCATTCCCT	12360
GCAGCTGGAA	GAGCAGTCGG	ATCACTTCTC	TCCACGGTTG	CCTTGTAAGG	TTCGTGGGTT	12420
TCGATATCCA	CACTCATAAG	AGGTTTATAA	AGAGTAGGAA	TGGGTTTCAT	GACCCACGA	12480
ACAACGATGG	GTTGCCCATT	AGTCATACCA	CCTTCAAAAC	CACCTAGATT	ATTGGTACGG	12540
CGAGTATAAC	CGTCTTCTTT	AGACCAGAGA	ATTTTCATCCA	TAAGTTGGCT	GCCTTTACGA	12600
TAACCAGCCT	CAAAGCCAAG	ACCAAATTCC	ACCCCTTTAA	AGGCATTGAT	AGAGACAACA	12660
GCTTGAGCCA	ATCTTGCATC	CAATTTTCTA	TCCCATTGGA	CATAGGAACC	AAGACCAACT	12720
GGAACGCCTC	CGACGACTGT	CTCCACAACC	CCACCGATGG	TATCACCATC	ACGTTTGATT	12780
TGGTCAATAT	AGTCCTTGAT	TTCTGTCTCT	CGTTCTTGGT	TGACAATAGA	AACTTCAGAC	12840
TGGGCAGCTC	TTTGCTTAAT	TTCAGCGACT	GTCAGATTTT	CAGGAACATC	GATTTCCCTG	12900
CCACCAAAGA	CCACGACATG	GTTGGCAATC	TCCATATCCA	GCTCAGCCAA	GAGGCGTTTG	12960
GCTACTGCAC	CAACTGCCAC	CCGCATGGTG	GTTTCACGAG	CTGATGAACG	CTCCAAAGAA	13020
TTTCGCAAAT	CATCAAAACG	GTACTTAATC	CCCCCAACCA	AATCGGCATG	ACCTGGGCGA	13080
GGATGAGTAA	TTTTCCGCTT	GCTTTTAAGG	CGGTCTTCAA	TGTCCTCCGC	AGACATGATG	13140

690

TCCAGCCATT	TCTGGTGGTC	CTTATTGATG	ACATCCATAG	TAATAGGCGC	CCCTGTCTGC	13200
TTCCCGTGGC	GAACGCCCCG	AGTAAAGACA	ACCTGGTCAT	TCTCAATCTT	CATACGACCA	13260
CCACGACCGT	AGCCACCCTG	ACGGCGTCTA	AGGTCCTCAT	TGATATCCTC	AGCTGTCAAT	13320
GGAAGTCCAG	CTGGAATTCC	CTCAATAATA	GCTGTTAGAC	GGGGGCCGTG	TGATTCTCCT	13380
GCAGTTAAAT	ATCTCATACA	CTCTCCTTAT	TTTACCAAGT	AGTCTTTTCAT	CTCTTCCAGA	13440
GAAACTGGGT	GAATGGTCGC	TGAACCAAGC	TCTGGCACCA	AGACCAATTT	CAAGGTGTTA	13500
CCACGCGCTT	TCTTGTCATG	AGTAAGAGCC	TGATAAAGCT	TGCCAACTTC	CCAATTTTCA	13560
TAGTCAACAG	GCAAACCGAA	TTTCTGACAC	ATCTCTGTGA	TAGATTGGGT	AATGCCAGCT	13620
GGCATGAGGC	CTTTTTCCTC	AGCAACCTTG	GAAATCTGTA	CCATTCCCAT	GGCAACAGCC	13680
TCTCCATGCA	TGACCTTGCC	ATAACCGGCA	GTCGCTTCGA	TGGCATGGCC	AATAGTGTGG	13740
CCAAAATTGA	GGTAAAGACG	AATACCATTG	TCCAACCTCAT	CTTCAACCAC	CATCTTGCGC	13800
TTCACCTGAC	AAGAATGTTT	AATCAAGGTC	TCTGCATGTT	CCAAAATACT	CTCAACAGAA	13860
CCATTCAGTC	CCGTCAAGAG	AGCCCACAGT	TCTGGATCCT	CAATCAAGCC	ATACTTGATA	13920
ACTTCACCCA	TCCCTTCAAT	CAACTCTCTT	TTTCCGAGGG	TTTCAAGAAC	AAGTGGATCA	13980
ATCAGAACCC	CATCTGGTTG	GGCAAAGGTC	CCCACCATAT	TTTTAGCAAA	TGGTGTATTA	14040
ACGCCTGTCT	TTCCACCGAT	AGAAGAATCA	ACCTGAGCTG	TCAAACCTAGT	CGGAATCTGA	14100
ACAAAGTGAA	TACCCCGCAT	ATAGGTAGAG	GCTACAAATC	CAGCCAGGTC	CCCAACAACG	14160
CCACCACCAA	GAGCAACGAT	TCCATCGCTA	CGAGTCAGAC	CTTGCTTGAC	TAGAAATTCA	14220
TAGACTTTCT	GAACAGTAGT	TAAATTCTTT	CTTCTTTCAC	CTTCTAAGAA	ATCAAAAACA	14280
GCTACCTGAA	AACCAGCATC	TTCTAGGCTG	AGCTTGACCT	TCTCTGCATA	GAGAGAGGCT	14340
ACATGGTTAT	CTGTCACAAT	GACTACCTTT	TGCGGTTGCC	AGAGTTCTCG	CAACCACTGA	14400
CCAGCCTGGG	CCATACAACC	TTTTTCAATC	TGAATATCAT	AAGGATGGTG	AGGAATATCG	14460
ATTCTGATTT	TCATAGGAGA	GTCTCCCTTT	CTTTATTGGT	ATTTTCTGT	TAAAGACTGC	14520
CAAATCTCTT	CTGTCTGGCAT	TTCCCTTGCT	GTCCACAGTT	GAAAAGCTTC	TGCAGCTTGA	14580
TAGAGTAACA	TTCCCAGACC	ATTGACTGCT	GGATTGCCCT	GACTTCTAGC	CCATTTCAAA	14640
AACGGTGTTT	CAAAGGGTTG	GTATATGATA	TCTGCAACTA	AAAGAGTTTC	TGGTAAGACT	14700
ATGTTTTTCAG	GAACAGGAGA	GGATTGGCCA	TCCATGCCCA	CACTGGTGGC	ATTAACCTAGC	14760
AAATCCGACT	CGGCAATCCT	TGCTTGCACT	TCAGAAACAT	ATTCTAAAGC	ACACAAATCC	14820
ACTTTAAAC	CTGTCTGCTC	CTGTAACCTG	TCTAGGTAAG	GTCTTGTTTT	TTCCATAGAA	14880
ACGGAACGAA	CAAAGACCGA	AATCTGACTG	ACGCCATCCA	AAATAGCCTG	TGCCAAGATT	14940

691

GATTTAGCCG	CACCACCTGC	ACCCAGCAGG	GTCATCTTTT	TACCTGAAAT	TGTAAAAGAA	15000
GGCAAGCACT	TAAAAAATCC	CTTGCCATCT	GTATTATATC	CAATTAAATT	GCCATTCTCA	15060
TTGACAACCG	TATTAACCGC	ACCAATCAAG	CGCGCTTCAT	CGCTCAGCTT	ATCCAAATAA	15120
GGAATCACCT	GCTCCTTATA	GGGCATGGAC	AGATTGATGC	CAAACATCTG	GTAGCGACGA	15180
ATATTGGCCA	CTGTTTCTAC	CAAGTCACTC	GCTTCAATCT	CCCAAGCCAC	ATAAGCACCG	15240
TTGGTAGCTG	TCGCCTCAAA	GGCTCTATTG	TGGATGAAGG	GAGAAATAGA	ATGCTTAATA	15300
GGATTGGCAA	CAACTGCAGC	TAAACGTGTA	TAGCCATCAA	GCTTCATCCA	AAATCTCCCT	15360
GATTTTTTTC	ATGCTAGCTA	GAGAAATCTG	CCCAGGGGCA	CTAACCTCAT	CCAGACTGGC	15420
AAAAGACCAA	CTCGAACCAG	TCACATCCGC	AGTGATACGA	GAGACCTTGC	CCACCTTACC	15480
CATAGAAATG	GTCACATATT	CCTGTTTCAGG	ATTGAGGGTT	TTAAAGCCTC	GTGTATAGTT	15540
CATCAAGTCT	AAGACATCCT	GCTCCGTGTG	AGCCATCACC	GCAACCTTAA	CAAGTTTTGG	15600
ATTTAGGATC	GTCAACTCTG	ACAAGATTTT	CATCATGTTC	TCAGGTGTTT	CTTGGAATTT	15660
ATGGTAACTC	AAAACAAGAT	TTGGGAAGTC	CAGCATTTCC	TCAAAAACAT	CCTTGTAGCT	15720
ATAGTACTCA	AAATCAATAT	AGTCTGGTTG	ATAGAGTTGC	GCAACTTCCT	TGATTAGATG	15780
GATATACTCT	TCTGGAGAAA	GGTCGATTTT	TCCACCTTCG	GAGCGAGTTC	GTAGCGTGAA	15840
AACCAACTCA	CGGCCTGCGA	ATTTTTTCAA	AATGGCTGGA	GCTACCTGCA	AAATCGCTTC	15900
TTTAGGCAGA	TAGTCGGCAC	GCCATTCAAT	GATGTCGGCA	TCCAGGTACC	TCGTGGCATC	15960
CAGAGCCTGA	GCCTCCTCTA	AACTTCTTGG	CATTACTGAA	ACGATTAATT	TCATTTACTA	16020
ACCTTCATAC	TAATCACCTT	GAGGTAATTA	CTACTTTCAT	CTTTTTTATT	ATAGGCAAAA	16080
TCTGCTGGAA	GACCATATTT	GTTTAAAATC	TGGTAACTTC	TTCTTGCAAA	ACCTTTATCA	16140
ATTTGTTCTG	TAAATTTCTG	ACGGGAAACA	TTGGCAGCAT	TGGTACTGGC	AATGATAATC	16200
CCTCCCGGAT	TTAAAATCTC	AAGACTCTGG	GAAATCAACT	TGTGATAATC	CTTGGCCACA	16260
GAGAAAGTTT	GTTTTTTTATT	CCGAGCAAAG	CTAGGCGGAT	CTAGGACAAT	CACATCGTAG	16320
GTCAAGTCTT	TGCGTTTGGC	ATATTTGAAA	TACTCAAAGA	CATCCATGAC	TATAAAACGA	16380
TGCTCGTCTG	TGCTGAGCCC	ATTTGCCTGA	AAATGCGCTT	GAGACAATTC	TCGTGAACGT	16440
TTGGCTAGAT	CAACAGAAGT	TGTATGGCTA	GCTCCTCCCA	TGGCCGCAGC	TACTGAAAAA	16500
GCCGCTGTGT	AGGAAAACAT	ATTGAGTAAG	GATTTACCCA	TAGCCAAGCC	GTCAACTAAA	16560
CTACCGCGAA	CCTCATGCTG	GTCTAGGAAA	ATTCCTGTCA	TCAAGCCATC	ATTCATAAAG	16620
ACTTGATACA	GGACACCATT	TTCTAAAACA	TTGAAAAAGT	CAGGTGCTTC	TTGACCATAA	16680

692

ACATGGGCAG	ATTCATAGTC	CAAACCCTTA	AAGCGGATTT	TCTCATAAGC	TCCTAAAACC	16740
TCAGGGAAAA	CCTGTCTAAA	GGCTTCTGAT	ATAGTCTGAC	GAATCTGATA	AACATAAGAG	16800
TTATACCAAG	AAAAGACGGC	GTAGTCGCCA	TAAAGGTCCA	CTGTCAGACC	CCCAAAGCCA	16860
TCTCCCTCTT	GATTAAAGAG	ACGAAAGGCA	GTTGTCAAAT	CATCTTGATA	GTAGGCGTTT	16920
CTCTTTTCTT	TGGCTTTTCT	AAACAACGTT	TCAAAGAAAG	CTTGATTGAA	GGCCACCTTG	16980
TCTTTGCTGA	TAAACCAGCC	CAAGCCCTTG	TTTTGCTGAG	AAAGGTAGGC	AGTCCCAAGA	17040
AAGTTTCCTT	CCTGACCCTG	CACCTCTACT	TCCTGATCCT	TAAGATTGAC	ATTCTCAAGA	17100
TCACTGGCTT	CTAGTAAAAC	TAGCCCCTTA	GCAAGCTTCT	TTTCAACCCT	TTTGCTGACT	17160
CTTATTCTAT	TCATAACTAC	CATTATATCA	AACTTTTAGA	CAATTCTCAA	AAAAGAAACT	17220
ACCCTTGCTT	TTTTACTCTT	CTTTTAAAAA	ATGGTATACT	AGACTTCCTG	CAAAACTAGG	17280
AAGTAAATGT	GTAAGAATCA	CAGTAAAAAA	TGCTCTCCG	TCTTGAGGA	GCATTTCTTT	17340
TTATCAACGA	AAATCAAATA	GCAAACATG	AACTAGCCT	CAGGTAACT	GTGAGATTAT	17400
AGGTAGAGAG	GTTGTATCAG	CAATATGTGT	CTGTCAAATT	TAGTGACAAA	GGTAGTAGAA	17460
GAAAGATAAA	GAAATAAATC	AGCTTCAGTA	GGTATCTGGA	AAATTTGATT	TTATAGAGAA	17520
GCCTTTTGTT	ACAAACTCAA	TATACTATCA	ATAAATAATA	TTATAGAAGC	AACAATAATT	17580
ATAATTTTAC	CTATCTGCAT	CATTCTATTT	CGAACTCTAA	ATATATGTTT	TATCAAAAAT	17640
ACTTGGAACA	CACACATTAT	AGGAATTAAC	GTTTTTGAAA	TTGAAAAATA	TCCAAATAAA	17700
TAAACTATAA	ACAACAAAAA	TAGAACTATG	TTATATTTCT	TATTCAAAAC	ATTCCCTCCCT	17760
ATATATTTTT	GATTACCAAT	CTTAATCATT	TACAACTACA	TTCTAACAAA	CTATAAAAGC	17820
GTTTGTCGAA	TTGAATTTAT	CAAGCAAGCG	ACCAACCAGT	TCATCTTTTT	TCTATTTCTG	17880
CCAATATGCG	TGACAGGTAA	TAATGATAGC	CAAAAATAGC	AAGAGCAAGC	AAGACGATAA	17940
GAGCTCCTAC	TCCCAAGCTG	ATGGCAAGGA	TAGGGGAGAG	AGACTGAACC	AAGAATATGC	18000
TCCCAATTAC	AAGGGCCATC	AGGATTGCAC	TATAAATAAA	CAATAAAACT	ATGGCGACTA	18060
TGCCATTTGA	ACGATTCACC	AGGTCCGTAA	TGCTACTCCA	ATTGGTTGAC	AGATTTTAA	18120
CGTCCTTAAA	GTAATGGTGG	CAAGAAAGGA	TGACACTGGC	AATGATCCAG	ACTACAAGAA	18180
GGTAAATCAT	CGAAATGATG	GGCAAGCCTA	GATATAGAGA	AAGACCAAGC	AAAGTCAGAA	18240
CTGGTAAAAA	GGAAGTGGCA	GCATATATAA	TCCAAAATTT	CACTTTCACA	TAACGAGCAA	18300
AGTCAAAGGG	TAAACTCTTA	AGAAAATCAA	CATTTTCCCT	CTCCAAGGAC	AAGGCAATTG	18360
AATGCAGGCT	GGTGATATTG	TTATTGACAA	CTGCTATAAA	GAGAGCTATA	AAAAACAAGG	18420
GTAACCAGTA	TGGAGGATGA	ATGTCTGGAA	CTATCTGAGA	ATCTCGGATT	TTGGAAATCA	18480

693

GACCGATCAT	CATGAGATAA	GGAAGGAAAG	CACTTGATAA	AAGCACTGTA	ATCACGCCAG	18540
TCCCCTGTCC	CAAGAGGGTG	AGGTGGTAGC	GTAAAACCAT	GCGAAAAAAT	CCCTTTTGTAG	18600
TGGTTGAAAT	TCTCTCCTTG	CTGCGACGTT	CTTTTTTTGAC	CTTCTCCTCA	CTATTAAGCA	18660
GGATCACGTC	ATAAAAACGA	GGAAGGACCT	TCTTTTTTGGT	CAGATAAAGC	AGGAAGAGAG	18720
TTAGTCCTAT	CCAAGCGAGC	AGACCCACTA	AGGCTTCTGT	CGAAAAAGGC	TCCACTGCTA	18780
TTTTGTAAAA	GATATGAAGA	GGATAAAGGA	GAAATGGAAT	GTCTCTAACT	TTGTCAACAA	18840
TACTTCCAAA	AGTCGACTGA	AGAAAGAAGA	TAAATATTAA	AGGTATGAGA	ACTCCTATCC	18900
CAATCATCAC	ATTCGAAAAA	ATAGACTGAT	ACTTTCTGAA	GACCCTAGTT	TGAGCCAAGA	18960
AATGCACTGC	CACTACCATC	ACTAGAGCCA	CAGAGACAAA	TAATAAGGTC	AAGGACAGTA	19020
GCATCAAAGG	CAAACCCAGC	CATAGAGAAG	GAGCTAGCCT	AATGTAGAGG	ACCAGAAAAAT	19080
AAGCTAGGAT	TGGTACAATT	CCAGTTAGAG	CTGGCAAAAG	GACAGACAGT	CCTTTTAGCAA	19140
TTATAATCTC	TGATTCTTTA	AAGGCATAGG	GCCTATACGA	TACCAAATCC	TTACTCTCAT	19200
AAAAGACATT	GTAAAAGGCC	GTAAAGAAG	TTGAAAAGGC	AATCACTAGT	AAAATAGCAA	19260
TCATCGAGCT	AAAATAAATA	GGTATTTCTT	CAAAAGGAAA	ATGAATGGCT	ATATTACTAA	19320
AACAGATGAT	CATCAAGAGA	CTGGAAAAAA	TGTAAGAACT	TAAGACTCTA	GCGGAAACAT	19380
TTACTTTTTT						19390

(2) INFORMATION FOR SEQ ID NO: 87:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 18436 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 87:

CCGAGCGTCG	TTACAGACTT	TATCAAGATT	GGACGCAAGA	AGAAATTCAA	CATATAAAGG	60
AAAATATGGC	ACAATCTCCA	TGGCATACTC	ATTACCATGT	TGAGCCAAAA	ACAGGACTTC	120
TCAACGACCC	AAATGGCTTT	TCTTACTTTG	ATGGCAAGTG	GATCCTCTTT	TACCAGAATT	180
TTCCCTTTTG	TGCAGCCAC	GGTTTAAAT	CTTGGGCACA	GCTAGAAAGT	GATGATTTGA	240
TTCACTTTAA	AGAAACTGGA	ATCAAAGTTT	TACCAGATAC	TCCATTAGAT	AGCCACGGTG	300
CCTACTCTGG	TTCTGCCATG	CAATTTGGCG	ATAACTTATT	CCTATTTTAT	ACAGGAAATG	360
TTGCGGATAA	AAACTGGATC	CGTCACCCAT	ACCAGATCGG	TGCTTTGATG	GACAAGGAGG	420

694

GTAAGATTAC	AAAGATTGAC	AAGATCTTGA	TTGACCAGCC	AGCAGACTCT	ACTGACCACT	480
TCCGCGATCC	ACAAATTTTT	AACTTTCAGG	GTCAATATTA	TGCCATTGTC	GGCGGACAAG	540
ACTTGGAGAA	AAAAGGTTTC	GTTCGTCTCT	ACAAGGCTGT	CAATAACGAC	TACACAAACT	600
GGCAAGCAGT	TGGCGACCTT	GACTTTGCTA	ACGACCGTAC	TGCCTACATG	ATGGAATGTC	660
CTAATTTGGT	CTTTGTAGAG	GAACAACCTG	TCCTTCTCTA	CTGTCCACAA	GGATTGGATA	720
AGAAAGTTCT	AGACTACGAT	AATATCTTTC	CAAATATGTA	TAAGATCGGG	GCTTCCTTTG	780
ACCCTAAAAA	TGCCAAAATG	GTAGATGTGT	CTCAACTTCA	AAACATGGAT	TACGGTTTCG	840
AAGCCTATGC	AACTCAAGCC	TTCAACGCTC	CTGATGGGCG	TGCTCTAGCA	GTTAGCTGGC	900
TTGGTTTGCC	AGATGTTTCT	TACCCATCTG	ACCGTTTTGA	CCACCAAGGA	ACCTTCTCTT	960
TGGTCAAGGA	ACTCACTATC	AAAGACGACA	AGCTCTACCA	GTATCCAGTC	GCTGCTATTA	1020
AGGACCTTCG	TGCTTCTGAA	GAAGCCTTCT	CAAACCGTTC	CCAAACCAAG	AACACTTACG	1080
AACTTGAACT	CAACTTGGAA	GCTAATAGCC	AGAGCGAGAT	TGTCTTACTT	GCTGATAAAG	1140
AAGGTAAGGG	ACTTTCATC	AACTTTGACC	TTGTAAACGG	TCAAGTAACA	GTGGATCGTA	1200
GCCAGGCTGG	AGAACAGTAT	GCCCAAGAAT	TTGGGACAAC	TCGTTCTTGC	CCTATCGAGA	1260
ATCAGGCTAC	TACTGCTACA	ATCTTCATCG	ATAACTCTGT	CTTTGAAATT	TTCATCAATA	1320
AAGGAGAAAA	AGTATTTTCT	GGTCGTGTCT	TCCCACATGC	GGACCAAAAT	GGTATCCTGA	1380
TTAAATCTGG	AAACCCAACT	GGAACCTACT	ATGAATTAGA	TTATGGTCGC	AAAACCTAAT	1440
GATGTCGCCA	AACTTGCAGG	CGTCAGTCCT	ACTACCGTTT	CTCGGGTTAT	CAATAAAAAA	1500
GGGTATCTAT	CTGAGAAAAC	CATCCAAAAA	GTCAATGAAG	CCATGCGAGA	ATTGGGCTAT	1560
AAACCCAACA	ACCTGGCTCG	TAGTCTGCAA	GGAAAATCAG	CTAAGTTAAT	CGGCTTGATT	1620
TTCCCCAATA	TTTCCAATGT	TTTCTATGCA	GAATTGATTG	ATAAATTGGA	ACACCAACTC	1680
TTCAAAAATG	GTTACAAGAC	CATCATCTGC	AACAGTGAAC	ATGATTCTGA	GAAGGAACGC	1740
GAATACATCG	AAATGTTGGA	AGCCAATCAG	GTGGACGGCA	TCATTTCTGG	TAGTCACAAC	1800
CTAGGAATCG	AAGACTACAA	TCGTGTGACA	GCGCCGATTA	TTTCCTTTGA	CCGAAACCTA	1860
TCGCCAGACA	TCCCTGTCGT	CTCCTCTGAC	AACTATGCTG	GTGGGGTTCT	TGCTGCCCAA	1920
ACCTTGGTCA	AGACAGGTGC	CCAGTCTATC	ATCATGATTA	CAGGGAATGA	CAATTCTAAT	1980
TCGCCAACCG	GACTGCGCCA	CGCTGGTTTT	GCATCCGTAC	TCCCAAAAGC	TCCTATTATC	2040
AATGTTTCCA	GTGACTTTTC	TCCCGTCAGA	AAAGAAATGG	AAATCAAGAA	TATCTTGACC	2100
CGGGAAAAAC	CAGATGCCAT	TTTTGCTTCG	GATGATTTGA	CAGCTATTCT	GGTCATTAAA	2160
ATCGCTCAAG	AATTGGGCAT	TTCTGTCCCA	AAAGAGCTCA	AGGTCATCGG	CTATGATGGG	2220

695

ACCTACTTTA	TCGAAAATTA	CTACCCTCAA	TTGGCTACTA	TCAAGCAACC	TTTGGAAGAG	2280
ATTGCTTGTC	TCACTATTGA	TCTTCTCTTG	CAAAAGATTG	AAGGCAAGGA	AGTCGCCACA	2340
ACTGGTTACT	TCTTACCAGT	TACGCTATTA	CCAGGAAAAA	GTATTTAAAC	ACAAGAAAAAC	2400
TCAGACCGAT	TCGTCTGAGT	TTTTATGATC	TTAAATTTTC	GAGATAGCGC	TGGGCTGTCT	2460
CTAGGTTAAA	GGTTTTATCT	GAGATGAGGC	GCTCTACTAG	GGGAGCAACT	TCAGATTCAC	2520
TAGCCCCAGC	TAGGAGAGCT	AGGGATTTGG	CCTGTAGTTT	CATGTGGCCT	TGCTGGATGC	2580
CCGTACTTAC	CAAGGCTTTG	AGGGCTGCAA	AATTTTGAGC	AAGACCGATG	GACACGATAA	2640
TCTGGGCTAA	TTCTCTGGCA	GAAGGATTTT	CTAGTAGATC	ATGACTGAGA	ACTACACGTG	2700
GGTTGAGGCC	GATAGAGCCA	CCCTTAGTCG	CTACAGGCAT	GGGCAGGGTC	ATCTCACC GA	2760
CCAATCTTTC	TCTTTCAAGG	TCCAGCGTCC	AGCAGCTAAG	ACCTTGATAG	CGTCCATCTC	2820
GACTGGCAAA	GGCATGGGCC	CCAGCTTCGA	TGGCACGCCA	GTCATTACCA	GTGGCAATCA	2880
AAATCGCATC	AATACCATTA	AAAATTCCTT	TATTATGAGT	AGCAGCTCGG	TAAGGATCAG	2940
CCTGCGCAAA	CTGACTAGCC	AACGCAATTT	TCTCCGCAAT	CTCTCGTCCT	TGATCCTTTT	3000
GGCGGCTCAA	GTAGCGAAAG	GCGATGCGAC	AGCTTGACAGT	CACCAGAGAA	TCGGTCGCGT	3060
AGTTGGACAG	GATTCCCATG	AGACTCTGTC	CCTGACTGAG	TTCTTCTAAG	ACTGGTTTCA	3120
AGGCTTCCAG	CATGGTGTTG	AGCATATTGG	CACCCATGGC	TTCTTGGGTA	TCGACATGAA	3180
TATAAACAAAC	GAGAAAGTCT	GGTTCGCCTT	TTATCTGCTC	GACATGCAGA	TCACGCGCCC	3240
CACCTCCACG	TTTAACGATA	GAAGGATAGG	CTTGATTGGC	AAGCTCCAAG	AGCTCCGCTT	3300
TCTTGCTGGC	AATCTTCTCT	TGCGCTAGTT	TAGGATTAGC	AACTTGATAA	AGGGCTACCT	3360
GCCCAATCAT	CTGTCGCTGA	TGGACTTGTTG	CAGTAAAACC	ACCTGCACGC	TTGATGATTT	3420
TGCTGGCATA	GCTGGCCGCC	GCAACCACAG	AGGGTTCTTC	TGTCACATAG	GGAACGGTGT	3480
ATTCCTGACC	GTTGACAAGT	ACCTCCGGAA	CCAGTGAATA	AGGCAGAGAA	AAAGTTCCCA	3540
CTACATTCTC	ACTCAGCTGG	TCTGCCACAG	TCACGCTCAT	CTGTTCATCC	TTCTCCAGAC	3600
TAGCTTGTCT	CTCAGGACTA	AGGAGCGCCT	GAGCTTTTAA	CAGCTCGAGG	CGCTCTTGGT	3660
ATGATTTTTT	AGAAAATCCA	TTCCAACCTA	TCTTCATTAT	TTTTCAACCT	TGCTATAACG	3720
GCGTTGGTGG	TCGAGAATTT	CAACCAAGGC	AAAATCTTGA	TTTTCATAGC	CAGCAAACCTG	3780
GGCAGAGTTA	GTTTCATCCA	AGTTTACTTC	CTCAAAAAAG	ACCTTTTCAT	AGTCTGCAAC	3840
GGATAGGGCA	GTTCGTTGGT	TGAGCTTGTT	CAAACGGTCT	TTATCCAAAT	AAGCTTCATA	3900
TCCTTCAACC	AATTCACCAC	TGAAGAACTC	AGCCACAGCT	CCACTTCCGT	AACTATAAAG	3960

696

GGCGATTTTA	TCCCCAGCTT	TCAAGCTATC	TGTATTTTCC	AAGAGAGACA	AAAGTCCAAG	4020
GAAAAGTGAA	CCTGTGTAGA	TATTCCCCAC	CTTTTGACTG	TAGAGAATAG	ACTGGTCAAA	4080
ATGCTTTTGT	AAGAGGTCTT	TTTTCTCTTG	AGGCAGGCTC	TTATCCATGA	TTTTTTTCAA	4140
GCCTTTTAGC	GCTAATTTAG	GATAAGGCAA	GTGGAAACAA	ACAGCCGCAA	AATCATCCAA	4200
AGTAAGCTGG	TAGCGTTTTT	GATATTCAAG	CCAAGTCGTT	TTCAAACATAT	CCAAGTATTG	4260
TTGGGTAGAA	TAGACACCAT	TTACATAAGG	AGTTGTCGAG	TAATTTGGTC	GCCAGAAATC	4320
CATGATGTCA	CGGGTCTGAG	CTACATTGTC	ATTATTAAAG	GCCATCATGC	GTGGATTTTG	4380
TGTAATCAAC	ATAGCTACAC	TTCCAGCACC	TTGAGTTGGT	TCTCCTGGAG	TTTCAATACC	4440
GTATTTGGCA	ATATCACTGG	CAATGACCAA	GACCTTGGAC	TCCGGAGAAT	TTTCCACATG	4500
CAATTTGGCA	TAATGGAGGG	CAGCAGTCGC	TCCGTAGCAG	GCTTCTTTAA	TCTCGAAACT	4560
ACGAGCAAAG	GGCTGGATGC	CCAGCAAGCC	ATGCACAAAG	ACGGCCGCAG	CCTTACTCTG	4620
GTCAATTCCT	GA CTCGGTCG	CCACAATGAC	CATGTCAACT	TCTTGTCTTT	CTTGCTCAGT	4680
TAAAATAGAG	TCACTAGCAC	TGGCCGCCAA	GGTCACGATA	TCCTCAGTTA	GGGGCGCAAT	4740
ACTCAATTCC	TTGAGTAAGA	GTCCTTTACT	TAATTTTTC	GGGTCAATTC	CCCTCGCTTC	4800
TGCTAAGTCT	TGTAATTTCA	AGACATATTG	ACTGGTCGCA	AAACCAATCT	TATCAATACC	4860
GATTGTCATA	TTTACCTCTG	TTTTATCATT	CATGTAAAAA	ATCGTTCTAT	ACTATTTTAT	4920
CACAAATGGC	AGTAAAAGAG	AGAAAAAAGA	CTTGATTCAC	CAAATCAAGC	CTCTTATTGG	4980
TCATCATTTT	AAAGAATGAT	TAGTTGCTAG	AGAGTTCACC	GATATAAGTA	GCTTTATAAG	5040
CTCCATTAC	AGTTATCAGC	TCCTGGAGGA	TCAAATTTCC	TGAGTAAGTC	CTTCCCATCT	5100
CATCTACAAA	TTTTTGATAA	AACTGACTGG	TCGGAATTTT	TCTGACATCC	TTATCAAATG	5160
TCTTATCAAG	TGTTTTACTA	ACCTTCTCAG	CAATCAATTG	ATGCTCTTGC	CATCCACTTT	5220
GAAACTCTGA	GCCCGAACTA	GAAACCATGA	CTGGGATAAA	CAACAAGGTC	AGTAGATTTA	5280
CAGACAATAA	GGAAAGTAGT	AGACTTCCTG	CAAACTAGA	ATCCTAGTTC	ATGATTGATA	5340
ATACCAGCAA	TCAAATTCAT	TCGTAATCCG	AAGCGTTTAC	GATGATTTTCG	ATAGGTGTGT	5400
GAAAACATTT	TAAACGTTTT	TACTTTGGCA	AAGATGTTCT	CAACCTTGCT	TCTCTCCTTA	5460
GATAGCGCAT	GGTTACAGGC	TTTATCTTCA	GCTGTTAGCG	GCTTGAGTTT	GCTGGATTTA	5520
CGTGGAGTTT	GTGCTTGAGG	ATATATCTTC	ATGAGCCCTT	GATAATCACT	GTCAGCCAAG	5580
ATTTTACCAG	CTTGTCCGAT	ATTTCTGCAA	CTCATTTTGA	ACAACTTCAT	ATCATGACTA	5640
TAGTTCACAG	CGATATCCAA	AGAAACAATT	CTCCCTTGAC	TTGTGACAAT	CGCTTGAGCC	5700
TTCATAGCGT	GAAATTTCTT	TTTACCAGAA	TCATTCGCTA	ATTGTTTTTT	AGGGCGATTG	5760

697

ATTTTACTT	CCGTCACATC	AATCATTATC	GTGTCCTCAA	AGCTGAGAGG	AGTTCTTGAA	5820
ATCGTAACAC	CACTTTGAAC	AAGAGTTACT	TCAACCCATT	GGCTCCGACG	GATTAAGTTG	5880
CTTTCGTGGA	TACCAAATC	AGCCGCAATT	TCTTCATAAG	TGCGGTATTC	TCGCACATAT	5940
AGAAAGCGTT	ATCAATTTAT	TTATCTCATT	TTTCAGAAAA	TTCTTTTATT	TCTGTAAAGT	6000
CTACGATACT	CGATGTGTTT	TTATATAATG	ATAGAGTCTG	AGAATCACTG	TTCCGCTAGC	6060
CATTCCAATA	GAGATTACCA	AAGCCAACAT	GACAACCAAG	GTCGCACTTG	CCAGTGCTTT	6120
ATTATAGTCC	CCTGTCACAA	AAAAGGCAGT	TGTTCCGGTAG	GAGAGATAAC	CTGGAACCAG	6180
CGGTGCCAAA	ATGGCCAAGA	TAAAGACCAC	AGCAGGTGTC	TTATAAAGAA	TACTTAAAT	6240
CTGGCTGACA	CAAGAACCAA	TAATGGCTGC	AATGAAGGTA	GCTACAATGA	CATTGGTCGG	6300
TTCTTGAGC	AAGAGATAGA	TTAGCCAGAC	AGTCATGCCC	AAAATCCCTC	CAGGTAAGAG	6360
CATAGACCGT	TGCACATTGA	GTACGATTAA	AAAAGTGATA	ATGGCAAGAA	AACTTGCTAC	6420
TGCTTGTAAT	AAAAAGGTTG	TTAGTGTCAT	ATTAGTTCAT	CAATACCAAG	GCGACAGAAG	6480
TTCTTGCCCC	TAAAGCGAGG	GTAATGAGCA	GGGATTCAAA	CATCTTACTC	ATACCAGAGT	6540
TTATGTGGTT	GGTCATAATA	TCACGGACCG	CATTGGTCAA	GGCAATACCT	GGTACAAACG	6600
GCATGACCGC	ACCAGCTATA	ATCAAATCTG	CCGTTGAAGG	AAAACCTGTG	TAGCGAGCCC	6660
AAAACCTGGG	AATTATCCCA	AAGACAAAGG	CTCCAGCAAA	GGCTGTCACA	AAGGGAATTC	6720
GGATAAATTT	TTCCACATAG	AGGGAAAAGG	CAAAACCAAA	TAAGGTCGCC	ACTCCTGCCC	6780
CAAGTGCGTC	GTAGATATTT	CCGCTAAACA	TAAGTAAAAA	GAAAGGAGCA	CTAAAGGTCG	6840
CAGCCAGAGT	TACCTGCAAC	TTAGTATAGG	GAAGGGGTTT	GGCTTGCAAG	GCCGTCAATT	6900
GCTTAAAGGC	TGTTTCTAAG	TCAATCTGCC	CCCCAACTAG	CTGACGAGAA	ATCTGGTTCA	6960
CATCGCAGAC	TTTTTCGATG	TTATAAGAAG	AGGAGGTCAC	GCGCTTCATG	CGCAAATATT	7020
GGTATTTTCA	ATAGAGAAAA	AGATAGCGGC	AGGCATGGCA	AGGACATTGC	AATCCACAAT	7080
CCCCTGCGAA	TGCGCGATTG	GAATCATGGT	ATCTTCTACA	CGATGGATTT	CTGAGCCACT	7140
TTTAAGGAGA	ATAGTCCCCG	CTAGCATAAT	CACATCAATG	ACGGCATTTA	ATTCTTTTGA	7200
TTCTTCCATG	CTTTCCTCCT	TTTATCAACT	CCCTCTATTC	TATCACAAAT	CCGGACTCAA	7260
AAAAAATCTT	TGCCATGAAA	TCATGACAAA	GATTGATTAC	TCATTTTGAT	TATCCATCTG	7320
CTTTTAAGGA	GTAGCTGAAG	TTGTTTTAGG	TTGTAGATT	GAAATCTTGA	CTCTAGTCTT	7380
ATTGAGGTCT	ACCTTTTCAC	CTGCTCTAGG	ACTTTGTTCA	ACAACCATGC	CTTCTGCACT	7440
ACCTGCAGGC	GCTGTCGTCA	CTTCTACAAC	TTCTATATTA	GCTTCCTTAA	TCCCAACAAT	7500

698

TTGAATCAAA	TTGTTCTTAG	TAAACTCCAA	GCTAGAACCA	ATGTAACTCG	GCATGGCAAC	7560
ACTTGTAAC	TTTTTAGCTA	CTGTCAAGAC	AATTTGAGTA	GGTTTACTCA	CATCATAAGT	7620
CGTTCCGGCA	CCTGGACTTT	GTTTCATAAT	CGTTCCTGGT	TCGCTTTCGC	TGGACTCTTC	7680
TTCCTCTATC	TTAATCAAAT	TCTCAGGAAC	CTTCTTCTGC	TTGAGTTCTG	AGATTACTTC	7740
TGTAGAGTTC	CGTCCAATAT	AGTTCCCTAA	TTGAATCGTC	GTAGCTTTTT	TAGCTACTGT	7800
CAAAACAATT	TGAGTTGCCT	TGCTCAAGTC	ATAGGTCGTA	CCTTCTGGTA	GACTTTGCTT	7860
CAGGACCGTT	CCAGCCTCAC	TCTCATTCGA	CTCTTCTTCC	TCAATTTTAA	TCAAATTATC	7920
TGGAACTTTT	TTCTCTTTTA	ATTCCGCAAT	GACATCAGAG	GATTTCCGAC	CGACATAATT	7980
ACTAATTTGG	AAAGATTGCT	TGCCTGATGA	GACAACCAAA	TTGATTTTCG	TTCTTCTTTT	8040
TCGACCAGTT	CCAGCGCCAG	GATCTGTACG	GATAATCCGC	CCTTCTTCCA	CCTTTTCACT	8100
AGCCTCTGTC	TTCTCCTCAC	CAATCTCAAA	ATTGGCTTTT	TTGAGCGTTG	CCTTGGCCTC	8160
TGCAACTGTC	TGACCTGCCA	CATCTGGAAT	GGCAATGGTT	GCAGGAGTTC	TGGATAGTAT	8220
CCAAATAAGA	GAAGCTGCCA	CCAATACAAG	GCTGGCCAAC	AAAATCAGGT	AACGCATCTT	8280
AAATCTATGT	TTTTTCGGTG	CTTGTGGTTG	GTAAGTTTCC	TCTGTCACAG	CCTGGCTTGG	8340
GTTTTTGATT	GATTTGTGTT	CTGTTTGCGC	TTGAACCTTA	GGAATAGATG	TCAAGGTACT	8400
CTGAGAAACC	TTCGGCAAGG	TCTTGGTATC	TGCCTTGCTC	GTTTCATCAA	AGATTAACTT	8460
ACTTTCATTT	CTACGATTGT	AGGACAAGCT	ACTAGACAAG	TCCACATACA	TCTCTGAAAC	8520
CGAGCGGTAG	CGATTGGTCA	ACTTTTTTAGC	AGTTGCCTTG	ATAATAACAT	TTTCTAAAGC	8580
CTGAGGTACA	GATGGATTTT	CTGCAATAAC	GGACGGCAGG	GGTTTCTGGA	AATGCTGGAG	8640
GGCAATGGTC	ACCGCGCTAT	CCCCGTCATA	AGGGATATGG	CCTGTCAGCA	TCTCATAGAA	8700
AATAATCCCC	ATGGCATAGA	TATCACTCTG	CACAGTCGCC	TTCGAACCAC	GCGCCTGCTC	8760
TGGTGACAAG	TAATGAACTG	AGCCCAACAT	CGAGTTAGTC	TGGGTCAGAC	TTGTCTCTGC	8820
AAAGGCTACA	GCAATCCCAA	AGTCTGTGAC	CTTGGCAGTC	CCATCTGGTG	TCAAGAGGAT	8880
ATTTTGAGGT	TTCAAGTCCC	TGTGAACAAT	TCCTCGAGTA	TGGGCCAAGC	GCATAGCCAA	8940
GAGAATTTGT	CCCATGATAC	GGACTGCTTC	TTCATTAGAA	AGAGGATAAT	GTTTCCTTGAT	9000
ATAGCGTTTG	AGGTCCAGTC	CAGCCACATA	CTCCATAGCT	AGGTACTGTT	GACCGTCTTC	9060
CTCGCCAATA	TCTGTTATCC	GAACGATATG	AGGATGGTCT	AGATCTGCCA	TAGCTCTCGC	9120
TTCACGCTGA	AAACGAGCTA	CAGCTATCGG	GTCCGTCTGG	TAGTTGGTCC	TCAGAACCTT	9180
CACTGCCACT	TCTTCCCCAT	CTAAGATTAA	GTCTTTGGCT	AGGTAGACAT	CCGCCATACC	9240
TCCTCGACCA	ATCTGTTTGA	CAATCCGATA	GCGTCCGGCA	AAAATCTTGC	CGATTTGGAT	9300

699

CATTCTGCAT	CCTCCTCGTT	CATAGAAACA	AGGGCAACCG	TAATGTTGTC	TAAACCTCCT	9360
GCATTGTTAG	CAAAACGAAC	AAGTGTCTCC	GTTTTATCTG	CTAAAGGAAT	ATCACTGGTT	9420
ACAAATATCAC	GAATCTCACT	GCCTGAAATC	ATGTTGGTCA	AGCCGTCAC	ATTGAGCAAG	9480
AGATAGTCAC	CTGACTCAAG	GATAACTGTC	CCAAAATCAG	GCTGAATTTT	ATCTTTTTTG	9540
CCAATAGACT	GGGTGATAAT	ATTTTTTTTG	GGATGAGCTT	CTGCCTCTTC	TGGTGTCAAT	9600
TGACCAGCCT	TGAGCAATTC	ATTAACCAAG	GAATGATCGC	TCGTCAACTG	ATGGTATTCT	9660
TCTCCACGAA	TCAAGCCGAT	ACGCGAATCA	CCAATATGAG	CATAGATAGC	CTGATTATCA	9720
ATAATAGCAA	GGACTTCCAA	AGTAGTTCCC	ATGCCTCTGT	AAGCTTCATC	CTGACCAAGC	9780
TGGTGAATCT	TTTGATTTTC	AATTTCTAGG	TAATGGGCGA	ACCATTCACG	CACTTCATTG	9840
ACTGTATCGA	TCTGGGTATC	AACCCAAGCT	ACACCCAGGT	CTGTGACCGC	CATTTCACTA	9900
GCGATATTCC	CTGCGCGATG	ACCTCCCATC	CCATCAGCTA	AAATAATCAT	GGTACGTCCA	9960
GCTCTATTGA	CATAGTGGTT	GACATAGTCT	TGGTTATTTG	TTCGTTTCTG	ACCAACATCT	10020
GTAAATAATG	AAATTTCCAT	GTGTCAGTTC	CTTCCTAATC	CGATATCTTG	CGAAATTGAC	10080
TGATGAAGAA	TCCATCACTT	CCATACAATT	CAGGTGTAAT	GAGGATACAG	CCGTCTTTCA	10140
TGATATCCTT	ACATTCATGT	TCTAGTTTTA	CCTGCTCGAA	CTCGGGATGA	CTCTCTAAAA	10200
AGGCCTTAAC	GACTTGAAAA	TTCTCCTCTG	AGACGATAGT	GCAGGTGCTA	TAAGTTATTA	10260
TACCACCTTT	GCCTAGTATT	TGACAAACAC	TACCTAATAT	TTCTAACTGA	ATTCCTGCA	10320
AGGACGCGAA	ATCTGCCGTT	TCTTTATTGT	ATTTGATATC	TGGTTTTTCG	CGCAAAAGAC	10380
CGATTCCTGA	ACAAGGAGCA	TCCACCAAAA	TCTTATCAAA	GGAATCCTGG	TCAAAAAACT	10440
CATGCACCTT	TCTGGCATCC	AATTTTTGAG	TTTGAACCCG	ATCTTCAACT	CCCAGACGTT	10500
GGGCATTTTC	TTGAATTAAA	TCCAACCTGT	GGTCGTACAA	GTCCAGAGCA	GTAACCTGAC	10560
CTGTCGTAAG	ATAAGAGGCT	ATATGGGCTG	TTTTCCCACC	TGGAGCCGCA	CAGGCATCAA	10620
GCACTCGCTC	ATCACCTTGT	AAATCAAGCG	TCGGAGCAAC	CAGCTGACTG	GAATCATCTT	10680
GGATGGTAAT	GGCTCCATCC	GCAAACAAAT	TATGCCCTGC	AAAATGCCCC	TGCTCCTTAA	10740
CCAGACCAGT	GGTTGCTAAA	AGGGAATTAT	TCGCCTCCAA	CAAGGCTTGG	ATTCCTCTTT	10800
TTGACTTAG	GTCTGTTACA	CGAATACTGG	CTTTGTTTCG	CACTAACAGG	CTTTCAAAGA	10860
TGGCTTTTGC	TCTCTCCTCT	CCGTATTCTT	CCTTGAGTTT	GGCAACTAGC	CAAACCTGGG	10920
GAGAATAGGC	AATGGAGTCA	CGCTTGTTTT	TTGCTTGAT	GCTAGCAATA	TCTGGCCAGC	10980
CTTCACGCAA	GATACGGCGA	AGGACAGCGT	TGACCAATTT	TTCCTGCCTT	TTTTTACGGA	11040

700

GTTTGGCCAA	TTCCACTGCT	TCATTAACCA	CAGCATGATC	TGGAATCTTG	TCCAAATAGC	11100
GGAGTTGGTA	GGCACTCATG	AGAAGAAGGA	CATAGAGCCA	GCTGTCTAAC	TGGTCTCTGT	11160
CTTCGATAAA	GTGGGATAGG	TACCATTCCA	GAGTCAGTTT	ACGGGCTACC	GTTCCATAGA	11220
CCAGCTCGGT	CACTAAGCCC	TTGTCTGCTG	CCAAAAGTTG	ACTTCCCTTT	AGATGCTTAT	11280
TTAAGGCGAT	ATTGAATAT	GCTTGGTTCA	CAAAAACATC	CTCTAGCACT	GCTAGAGCTA	11340
AACTTCTAGC	CGTTTCTACT	TTAGTCACCA	AATCGTTCTC	CTACAGTCAA	TGTACGTCCA	11400
ACTCCGTTGA	GGAAGGAAGC	AATGTCCATC	TTAGGCTTAC	CAGCTGGCTG	CACTTGTTTG	11460
AGGGATAGAG	CCCCCTCAGC	CGTTGCGACA	ATCAATTCTT	TCTTGCCGAT	AGAGAGAATC	11520
TCACCTGGAT	TTCCCTGACC	TTCTACTGGT	AGGGCTTCAT	AAATCTTAAA	GCGGTCGCCC	11580
TTAAGGAAAG	TATGGGCAAC	AGGCCAGGGG	TTCATTCCAC	GAATTTGGTT	AAAGAGTTGA	11640
CGATTGGTTT	TGTTCCAGTC	CAGTTTTTCT	TCCTCTGGCT	TTATATTTGG	AGAGAAGGTA	11700
ACCTGACTCG	TATCCTGCGG	TTCAGGTTTG	ATATCACCAG	CAATATAGGC	AGGCAGAGTG	11760
TCCAAAAGCA	AATCACGACC	AACTAGCGCC	AATTTTTCAA	ACAAGGTGCC	AACATTGTCC	11820
TCATCTGTGA	TCGGAATGCT	GCGACGAGAA	ATCATATCTC	CTGCATCCAT	TTCCTTAACC	11880
ATTTCCATGA	TGGTCACACC	AGCTTCCTCA	TCCCCTTGAA	TCAAGGCATA	ATGGATAGGC	11940
GCACCACCAC	GGTGTCTAGG	AAGGAGGGAG	GCATGAACGT	TGACAGCAAA	GTCCATGCTA	12000
TCAAGGAGTT	TGCTTGGGAG	AAACTGCCCA	AAAGCAGCAG	TCACAATTCC	ATCTGCTCCT	12060
AGCTTCATAA	GATCTTCCAT	CTCTGGACTT	CCAGATAATT	TTTCAGGTTG	GTAGATAGAT	12120
AGTCCTGCTT	CCTTGGCAGC	CTGCTTGACT	GGGGTTTCTT	GGATAACTTT	TTTACGACCA	12180
ACAGCACGGT	CTGGCTGGGT	CACAACGGCT	AGAATTTCTG	AACGGTCATC	TGTCAAAAGT	12240
CCTTTTAAGA	CTGTTGCTGA	AAAGTCGGGG	GTCCCCATAA	AGATTAGTTT	TGTCATATCT	12300
TCTCCTTCTT	ATAAAAATTG	CTGCGGCTCA	TGGTCAATGC	TGAGACGGAG	CTCACTATTT	12360
TCCCGTTCTT	GAGTCAAGGC	TAAAACCTGG	TTGAGGGTCG	ACCCAGCTC	ATCTTCTAAA	12420
CGGTATTTAA	TTAAAATCTG	GTAATGATAG	AGGTTGTGGG	TACGGGCAAT	CGGTTTTGGC	12480
GTTGGCCCCA	GAATGGGACT	GGTCTCTGAC	AAGCCTGACC	GCAAAATGTT	CATGACTTCA	12540
TAGGCACGTT	TGAAAACCTC	TTCTTCTTTC	TTGTGAGAAA	GGGTAATACC	AATCGTGAAA	12600
TAGTAAGGTG	GATAGCCGAG	TTGTCGTCTG	ATTCCCATTT	CATAGGCATA	AAAGCCTTCG	12660
TAATCTTGAT	CCTTGGCAAA	TCGAATAGCA	TAGTGCTGCG	GATTGTAGGA	CTGTATCAAG	12720
ACTTGACCTG	CCTTTTCAGC	CCGACCTGAT	CGACCTGCCA	CCTGAGTCAA	GAGCTGGAAG	12780
GTTCTCTCAG	AAGAACGGAA	ATCAGGCAGA	TTCAAGGCCG	TATCCGCATT	TAGAACTCCG	12840

701

ACTAGGGTAA	CATTGGGAAA	ATCCAAACCC	TTTGCAATCA	TCTGAGTACC	AAGTAAAATA	12900
TCCGCTTCCC	CTCGCCCAAA	CTGGTCAAGC	AAGGCTTGGT	GA CTGCCTTT	CTTTCGAGTC	12960
GTATCCACAT	CCATCCTCAG	AATGCGAGCT	TGGGGAAAGA	GTTCTGCTAG	CTCATCATAA	13020
GCCTTCTGAG	TTCCCGTCCC	ATAGTAACGA	ATACTGCGGC	TCTTACAGTT	AGGACAGACC	13080
TGAGGAATAT	CCTTCGAGAA	ACCACAATAA	TGGCAGTTCA	TAGTCTTGGT	ATCCATATGC	13140
AAGGTCAGAG	AAATATCGCA	GTTGGGACAA	GTATCCACCG	TCCCACACTC	CCGACACATG	13200
ACAAAGCTAG	AATAACCACG	GCGATTGAGC	ATGAGAACCA	CCTGCTCTTT	TTTAACCAGA	13260
CGGTCTTGGA	TAGCCTCTAG	CAAAGGAGGC	GTAAAGTTTG	ACGTCTCATT	TTGTCCGATA	13320
TAGTCTCGAA	AGTCAATCAC	TTGAACCTCA	GGGATTGTAG	CCAAAGGATT	GGCACGTTGG	13380
GTTAGACGTA	AGTGTTGATA	GACGCCTTTG	CCAGCACGTG	CCCGGCTCTC	TAAGCTCGGC	13440
GTTGCAGATC	CAAGTACCAG	AGTTGCTTGA	TTATACTGAG	CCCGTAAAAT	AGCTACCTCT	13500
CTGGCATGGT	AACGGGGATT	GCTGTCCTGC	TTATAAGCCG	CTTCATGCTC	TTCATCAATA	13560
ATCATGACAC	CCAGATTTTT	CAGAGGAGCA	AAGATAGCAG	ATCTGGCACC	AACAACAAC T	13620
TGGGCATCGC	CACGCTCCAC	CTTGCGCCAT	TCATCATACT	TTTCACCATT	GGATAATCCT	13680
GAGTGAAGAA	TGGCTACCTT	GTCCCCAAAA	CGTGCTATAA	AACGCTCGGT	CATCTGAGGA	13740
GTCAAGGAAA	TCTCAGGTAC	CAGCAAAATA	GCTGTCTTGC	CCTTATCCAG	GGCACCTTGG	13800
ATAATCTGCA	AGTAAACCTC	GGTCTTCCCA	CTTCCTGTAA	TCCCTTGAAG	TAGAAAGGGA	13860
GGTTGAGAAC	TGCCAATAGA	ACTCACAACC	GCATCACGCG	CCTGTCTTTG	TTCTGGATTT	13920
AACTCCAAAG	GTCTACTTGC	TTCAATTCC T	TCAAAATAAG	CAGCCGAGCG	TTGAACTTCC	13980
TTTTGGACTA	TGGTAACAGC	ACCTTGATCC	ACAAAGAAGT	TGACTTGCTC	TCGCGAGTAG	14040
GA CTCTAACA	AGCTAGCCAA	GGAAGCGCTC	TCTGGATGAG	ACAGCAGATA	ATCTCTCAGT	14100
TCCAAC TTTT	TCTTGGCACG	TGTAGAAATC	TCAACACCTT	CTAATTGAGC	ATGGTCAACC	14160
TCATACCAAG	ACTGGGTCTT	GACCTTCTTT	TGATCGACTG	CCTGATATTC	CAGACCAAGC	14220
AGGCCTTTTC	TAGTCAAACG	CATCATTTCA	GCTTGCTTGG	CAAGGTCTAG	TGAAGAAAAG	14280
GCTAGCGAAT	CTTCTGAACC	AAACAGGCGC	ACTCGTTCTT	CCTGACTCAA	GCCTTCCAGA	14340
GGATAGAGAA	TCTTGTCATA	GCTAGAATTC	AGAAACCCTG	GAAGCATGGC	CTTGAGGATA	14400
GAGATTTTGT	AGGAGAAGAC	AGATTTGCGT	AACTCCTCAG	CCAGCCAGAG	TTGTTCTGGC	14460
GTGAGAACAG	GAGAAAAATC	CAGCACCTCT	GCAATATCTT	TTAAATCTTG	CTCCATCTCT	14520
TCTCCATCTG	ATTGGGACTT	CAAACCAAGA	ACAATCCCTT	GAATCAGGCG	ATTACCCTTA	14580

702

CCAAAAGGCA	CATGAACCCG	CATCCCAACT	TCCAGCATTC	CCTCAAATTC	CTCCGGAATC	14640
CTGTAACAT	AGGGCTGGTC	CGTCTGCATC	AAGGGCACAT	CTACGATAAT	CTTAGCTAGG	14700
GCCATCTTCT	CACCTCCTCC	TTGTCAGTAC	ATTCTTGCAA	TAGAAAAAAT	AAGATTGAGT	14760
CCCCCAACC	TTAAATTTTT	TCACCATCTT	CTTTTCTTTT	AGCAATTTGC	TCTTTGATTT	14820
TCTTTTCTTC	TTCTTCTTTG	CGGCGTTTTT	CTTCTTCGAT	ACGGCGACGC	ACTGCTTCAC	14880
GTTTTCCCTC	TGGATCTGGG	TGAATTGTAA	CGTTTCCTGA	TTCGATTTCT	TCTAAAGCGC	14940
GAAGAGTTGA	TTTTTCAGAC	TTGAAACCTT	GAGTTGCTGG	GGCACCTGCT	TCCAATTCGT	15000
GGGCACGTTT	TGCTTCCAAG	ATTACGAGTG	AATATTTTGA	AGGAACCTTG	TCGAGCAAGG	15060
TATCAATAGA	GGGTTTTAAC	ATCATTTGCT	TGTACCTATT	TTCTAAATTT	TATCGGGTAG	15120
TTGGAGATTT	TGGTAACATC	TCCTGATAGT	GACCAATGAC	ACGATCCACA	CAGAAGTGTT	15180
CTGCTTCAAT	CACACATTTG	ACACGTTTCA	CAGCTAGGGG	TACCTGATCG	TTGACAATCG	15240
CATAATCATA	CTCACGCATG	AGGGCAATTT	CTTCCTTGGC	CTTTTCGATT	CGTTGGGCAA	15300
TCACTTCTGC	ACTATCTGTT	CCACGACCTA	CCAAGCGATC	TTGCAATTCA	TCCAAATCTG	15360
GTGGTGTGAG	GAAGATAAAG	ACAGCATCTG	GAACCTTTTT	CTTGACCTGA	AGAGCACCCCT	15420
GAAGTTCAAT	TTCAAGGAAA	ACATCGATTC	CCTTGTCCAA	GGTTTCATTG	ACATAGGTCA	15480
GAGGAGTTCC	ATAGTAGTTA	CCGACATATT	CTGCGTATTC	CAACATCTGT	CCTTGACGAA	15540
TCAGCTCTTC	AAATTCTTCA	CGAGTACGGA	AGAAATAGTC	AACACCGTCC	ACTTCTCCAG	15600
GACGTTGTGC	GCGTGTGTC	ATCGATACAG	AATATTGAAA	TTGGTTTTTCA	GAAGTCTCAA	15660
AAATCTCTCT	TCTAACCGTT	CCTTTTCCAA	CCCCTGAAGG	ACCAGAAAAA	ACGATTAGTA	15720
AGCCTCGGTC	TGCCATTGTG	TCTCCTTTTA	GTCAATCTGT	GAAATAACAT	TTCTCTAGAA	15780
TAATGGCAAA	AAGCCAGATT	ATCCTTTACA	GTCTTTCTAT	CTAGTGTAAC	AAAAAAGCAG	15840
TAATTTTTTCA	ACTGCTCTTT	CTTATTTATT	TAGCATAATC	TACTGCACGA	AGCTCGCGAA	15900
TCACGGTTAC	CTTGATATTT	CCTGGATAAT	CGAGATTGTT	TTCAATTTTC	TTACGAACTT	15960
TGTGAGCCAA	GATTGTGACT	TTGTCGTCCT	TGATTTTTTCC	TGGATTGACC	ATGATACGAA	16020
TTTCACGTCC	TGCTTGAAGG	GCAAAGCTAG	TTTGCACTCC	TTCAAAGCCG	TTAGCAATTT	16080
CTTCCAAATC	ATGGAGACGC	TTGATGTAGC	TTTCAAGAGA	CTCACTACGA	GCACCTGGAC	16140
GGGCTGCGCT	CAAGGCATCT	GCTGCAGCGA	CGATAACTGC	TATCACGCTC	TCAGCTTCAA	16200
CATCTCCGTG	GTGACTAGCA	ATCGTATTCA	CCACAACCTG	GGGTTCCCTG	TACTTACGGG	16260
CCAATTCCAT	ACCGATTTCA	ACGTGGCTAC	CTTCAACCTC	ATGGTCAATG	GCTTTCCCGA	16320
TATCGTGAAG	GAATCCAGCA	CGACGGGCAA	GAGCCGCATT	TTCACCAAGT	TCGCTCGCCA	16380

703

TGATACCAGC	CAACTTAGCA	ACCTCAATCG	AATGGCGCAA	AACATTTTGT	CCATATGAAG	16440
TACGGAACTG	CAAACGTCCC	ATAATCTTCA	TCAAGTCTGG	ATGAAGGTTT	GGCGCACCAA	16500
TTTCATAGGC	AGCAGCCTCA	CCGTATTAC	GAATCTTATT	GTCAATCTCT	TGACGGTTTT	16560
TCTCAACCAA	CTCTTCGATA	CGAGCTGGAT	GTATACGACC	ATCTTTGAGC	AACATTTCCA	16620
TAGTCATACG	GGCAATCTCA	CGACGAATCG	GATCAAATCC	TGACAAGGTC	ACCACTTCTG	16680
GTGTATCGTC	GATAATCACA	TCGACCCCTG	TCAAACCTTC	AAAGGTACGA	ATGTTACGAC	16740
CTTCACGACC	AATAATGCGT	CCCTTCATAG	TATCGTCTGG	CAGATGAACT	GTTGAGTTTG	16800
TTGACTCCGC	TACATATTCA	CCAGCGATAC	GTTGCATAGC	TTGAACCAAG	ATGTCCTTGG	16860
CCATTTTGTC	AGAACGTTCC	TTGACCTCTT	GCTCAGCTTC	GCGAATGCGA	CTGGCAATCT	16920
CCCTGGTCAA	GTTTTCTCT	GTCTGAGCCA	AGATAATATC	TCGTGCTTCT	GCCTGAGACA	16980
GCGCACCAAT	ACGCTCTAGT	TCTGCTTCTT	TTTGTCTTTC	GACTTCCTCT	AATTGCTCTT	17040
CACGCGCATC	AAGGTTTTTC	GCTCTATCAG	AAATACTTTG	TTCTTTTTGT	TCAAGTGTTT	17100
GTTCTTTACT	CGTCAAATTG	TCGTCCTTAC	GGTCAAGGCT	AGTAGCTCTC	TCTGTCAAAC	17160
GACTTTCGAT	TTGTTTGAGT	TCTTGACGTT	CTGATTTGAA	TTCAGCGTCC	ACTTCTTCAC	17220
GGTATTTTCT	GGCTTCTTCT	TTGGCCTCCA	ATAGTGCTTC	TTTTTTAAGA	GACTTGCTTT	17280
CACGTTTGGC	TTCATTAACA	AGTAAATCCG	CTTCACGCTC	AGCTTGTTCA	CGTAAATTAG	17340
TTGCTTCTTG	TTCAGCATTT	AAAAGCATCA	ACTCTGCAGC	TTCCTGAGAT	GATTTTCATCT	17400
TAGCTGAGAT	GCTGACATAT	CCAATGACTA	AACCAATGAT	GACGGCAAAA	ACAGCAATCG	17460
CAAGCGACAT	GATTTCCATG	TTTTTACCTC	ATTTTATTGT	TATTCCGAAT	GACATACATT	17520
CTTTTACATT	CTACCATAAA	AAAGTGATTT	TCACAAACCT	AAAATAGAAT	ATGTTTTGAG	17580
GAATTTGGAA	CACATTTACC	AAAATAAACT	TGTTGTTTAG	AAATAGTAGT	TTAGTAGAGA	17640
CTTGAGAAAA	AGCCTACCTT	TCAATAGACT	TAGTAATGAT	CTTTAAAGGA	CAAGAAAGCC	17700
ACGCTATCTC	CATCCATCAT	ATAAATCAAG	CGATTTTCTG	CATCAATACG	CCGTGACCAG	17760
GCTCCTTGGT	AATCATATTT	GAGTGGTTCT	GGTTTACCTA	TTCCTGTAAA	GGGATCACGT	17820
TGAATATCCT	TGATTAGTTT	ATTGATTCTT	TTTAACGTTT	TCTTATCCTG	ATTTTGCCAG	17880
TAGCAATAAT	CTGCCCAGGC	ATCTTCTGTA	AACTTGAGCA	GCATTTCTTA	CTCCTCAATA	17940
ACATGGACCT	GAGTACTTCC	AGCACGAACT	TGAGCCATTC	CTCGCAAAAC	CTTATCAGAA	18000
AGTTCCTTAT	TTTGAGCAAT	TCTCAGGGTT	TCTTGATAC	TATCCCACTC	ACTCTTTGAA	18060
AGGACTACAA	TGTCCTCATC	TGGATTTTTA	TTGACCACCG	TCAAAGGCTC	AAATTCATCA	18120

704

TTTACCTTCT TCATGTAGTC CTTTAAATGA TTTCGGAATG TTGAGTAAAG GACTGCTTCC	18180
ATAACCATAC CTCGTTTTAG CTCTTTTCCA CTATTATACA CGAAAAGAAA GAAATTGTCA	18240
GGAAC TTGTA CAAGATTTTC TTTTCTATCT ATTTATACTC AATGAAAATC AAAGAGCAAA	18300
CTAGGAAACT AGCCGCAGGC TGTACTTGAG TACGGCAAGG CGACGTTGAC GCGATTTGAA	18360
TTTGATTTTC GAAGAGTATT ATTCGTAAAA AATCTCAAAA AGCCTACCTT TCGGTAGACT	18420
TAGTTTGTTT CTATTC	18436

(2) INFORMATION FOR SEQ ID NO: 88:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7001 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 88:

ACGTAGAAAA ACTATTTCTA TCACAGATAA TATTCCGTAT GTTGTTGGAG GTATTGAAAT	60
AAACGTCCTA GGTATCTTTC TCAGTCTATG TGA CTTACAA GGGAAAACTC TTTTCGAGAC	120
AGAAATTTTG AATGAAGATT ATCCTATTTTC AGAAATCAAT TCCACCATTA CCAATATGAT	180
AAAAACAGCT ATAGAGTACG TCCCTTTGGA AACAAAATTA CTTGGATT TG GCTTATCAAT	240
ACCTGGACAT TATAACAAAG ACTCCGGAAG TATCATTACA AACAAACCCCA TATGGGAATC	300
TTTTAATTTA TTAAATGTAA TTAAAGATT CAATTTTCCT TTTATTGTAA AAAATAATAT	360
CGATTGTATG GCTATAGGAC AATACCTTTT TAATCCACAC AATACCCCCG ATA ACTTTAT	420
TTTCCTACAC GCTGGATTAG GTATTTACAC TTCCTTTTTC ACAAAGAAA AAATAGGAGC	480
CTCTAAAAAT CCTTATATCG GAGAAATTGG ACACACCATT GTCGAATTGA ATGGGCAATA	540
TTGTGAATGC GGAAAAAAG GTTGTTTACA AACATATATT TCGGATGCTT GGTAAATCAA	600
ACACGCCCAA TTATTATTTA AAAATTCCCA ACTAACTGTA CTAAAAAGCC TTGTAAAGAC	660
TGAAAAAGAC ATTCATTTAG ACACCCTTTT AACGGCTTAT AATTTAGGCG ACTCCGCTTT	720
ACGTCAACAA ATTGATAAAG GAGTCAATTT ATTAGCCACT TCTATTGCAA ATCTCCTCCT	780
CATCAATCCT GCTGATAAAA TCTATATCAA CAGTCAATTG CTTAATTATC AACCTTTCAC	840
TCATGAAGTC AGGGATAAAA TCCAAGACCA GCTCCACTTC GTTCCCTTTA CTCGTAATAT	900
AGAAATTGAA ATTTTACCTT ACAACAAACA TCGTGGAAGT ATAGGAGCTT GTGCATTAGC	960
TATCGTCGCT TTTTTCATAG AACATAGCAA TGTATTACAA GATATTATTT CACCTTAATA	1020
TATTAGAAAT CTATAGACCT GTTTAAATCA ACTATAACCT GTAGTAGATA TCTCGTATTT	1080

705

AGACAATATG	AAAACAAGAC	GACTTCCATA	TAGGAAACCG	CCTTCTCGCT	ATGTTGAGTG	1140
ATTTATATTA	AAATAACTTT	TCTTCTAGCT	GCATTTTATT	ATTATAAAAA	CATTCATCAT	1200
AACCCCCAGA	ACTTAAATAA	CAATTTTTTAT	TCAAGATACA	TACTCCTAGA	ATAAACTTTA	1260
TATGAAATTC	TCATTTTTGT	TTTACAAATT	CTCCTTAGTT	AAATCTTGTT	TAATATATGT	1320
TTTACATATA	GTATTTAGCG	CCACATAGTA	CTGAACTCTC	TCCAAAAACG	GTTATTCCTC	1380
TTTGAATAGG	GCGTTATCAC	AAGAAAAGCA	TCTCCACGTT	TCAACTTCAT	ATGGCTCAAA	1440
AACAATCAAT	TGATGCTAAA	ACCTGTACCT	AGATGTTTCG	GTCATAAAA	CCATGAAACT	1500
GTAAAAGTGG	ATGAAATTGA	TAGCGATAGT	CAAATCAAGA	GGCATCATAA	CTCTAAAAAG	1560
TCACAATATA	TAAGTTCATC	CTCGGAAAAA	TATCATTTCTA	ATTGTTGAAA	TGCCTACATG	1620
AAAAGAAACG	TCAAATGCTC	ATGAAACAAC	GAATACAGGT	ATCAAAACTA	TGACAAAACA	1680
AATCCCTAAA	TTTACTAAAG	ACACTGCTCA	ACTTTACACC	TGTAAATGGT	TGTTGTATAA	1740
TAAAGTTACA	AAGATGTACG	ACCACACTGT	TGTAAATCAT	AGTGTTCGCG	AATATATTAC	1800
TGATAGCATT	TCTACAAATA	CAAGTAAAGA	GAGCGGATGA	GATTCAAACG	AAATATGTCA	1860
GTGCTTTGGC	ATTCCTAGCC	TTCATATCAT	TTAAAGAATT	CTATAGACAA	AATTTTTTCC	1920
AATACAGACA	CTCGTAACAA	CTGCTTCATT	TTTCTACCAA	CATATTTAGG	AACAGGATAA	1980
GATACAAGAG	TATTAATCCA	TAGCTCAGTT	CTATACCAAT	CTAAGACAAA	TAAGCTAAAA	2040
AAACGATTGA	TAATAAGCAA	ATAGATTCCA	AATTTTCTCT	ATCTGCTCAT	TTTAATAAAC	2100
AATACTAGTG	TAACTATCCT	TCCAGTCAGA	AGCTTGTCAA	ATCACACCGA	AAATCTTCT	2160
AAAATTTATC	TCGTTAGGCA	ATCAAGCAAA	AACTCGACGA	TAGTACAAAC	ATTATCATAC	2220
AGGATTGACT	TCCTAAATTA	TATACTTTAG	TAAGGTTTTT	GGATAAGAAA	AAAGGTTTCT	2280
TTTACATTTT	TAAACATTCT	TTTCTAAGAT	GAAAAACAGA	ATTTTTCGAT	TGTGATTTAA	2340
AGCAACAAGA	AGATTTTCAG	TATCATCCTA	TAGATACGAG	CTAATTAAGA	AAAACCTACAT	2400
TTTTGAATAT	AAACTACAAT	AATATAAACT	AAATTTTATA	GGAGGAAGAC	AATGGATTGG	2460
TACGATTATA	TGATACAGGC	ATCCAAACAA	TCACAATTCA	ACGCAAGCCA	TTGGTTTCGC	2520
TATTTGCGAA	AAGTTATTTT	TGAAGACTAT	TCTTATTTAA	CAAACCAAGA	TGTAGAAAAG	2580
TTGCTAGACT	CCAAAGAACT	AACCCGTTTT	CAAAAAATTA	GCTTGAAGTA	TGCCTTTCAA	2640
GAGCATACTC	CAACTCATAA	ATATGTGATT	TCATTAAATA	AACCTGCTAA	GTTAACCAAT	2700
GTTCAAAAAT	TGATGGAGAA	ATACAAACAT	GGATAAAATG	AAACCGGTCT	TCCAAGCCCT	2760
AAATAAGGAA	TTAATTCAGG	AAAATCTGAC	TTTAACAATT	ATCTGTGTCG	GTGGTTATGT	2820

706

CTTAGAATAT	CATGGTTTAC	GTGCCACACA	AGATGTTGAT	GCTTTTATGG	CTCTATAATA	2880
TTTGTAGTGG	GTAAATCCCC	TATGGATATT	ATGGAGCCTA	TTTTTGTGTA	GAAAAAAGT	2940
CCCATATGAC	CTATAATGAA	AAGCGACAAA	ACAACTCATT	AGAAAGAATC	ATATGGAACA	3000
ATTACATTTT	ATCACAAAAT	TACTAGACAT	TAAAGACCCT	AATATCCAGA	TTTGTAGACAT	3060
CATCAATAAG	GATACACACA	AGGAAATCAT	CGCCAAACTG	GACTACGACG	CCCCATCTTG	3120
CCCTGAGTGC	GGAAACCAAT	TGAAGAAATA	TGACTTTCAA	AAACCGTCTA	AGATCCCTTA	3180
CCTCGAAACA	ACTGGTATGC	CTTCTAGAAT	TCTCCTTAGA	AAACGCCGTT	TCAAGTGCTA	3240
TCACTGTTCA	AAAATGATGG	TCGCTGAAAC	TTCTATCGTC	AAGAAGAATC	ATCAAATTCC	3300
TCGTATTATC	AACCAAAAAA	TTGCGCAAAA	GTTGATTGAG	AAGATTTCTA	TGACCGATAT	3360
TGCTCATCAG	CTGGCCATTT	CAACTTCAAC	TGTCATTTCG	AAGCTCAATG	ATTCTCACTT	3420
TGAGCATGAT	TTTTTCGCGTC	TTCCTGAGAT	TATGTCCTGG	GACGTTGAAA	CAGTCCGGGG	3480
AGTGACTGTT	TCAATCGGGA	GATGGAGATG	AGCTTTATTG	CGCAAGATTT	TGAAAAGCTC	3540
GATATCATCA	CTGTTCTTGA	AGGTAGAACA	CAAGCTGTCA	TCCGAGATCA	CTTTCTTAAA	3600
TATGATAGAG	CCGTCCGATG	TCGCGTCAAA	ATTATTACTA	TGGATATGTT	TAGTCCTTAC	3660
TATGACTTAG	CTAGACAACT	TTTCCCGTGT	GCTAAAATCG	TTCTTGATCG	CTTTCACATT	3720
GTACAACATC	TTAGCCGTGC	TATGAGTCGT	GTGCGTGTCC	AAATCATGAA	TCAGTTTCAT	3780
CGAAAATCCC	ATGAATACAA	GGCTATCAAG	CGCTACTGGA	AACTCATTCA	ACAGGATAGC	3840
CGTAAACTCA	GCGATAAACA	TTTTTTATCGC	CCTACTTTTC	GTATGCATTT	AACCAATAAA	3900
GAGATTTTAG	ACAAGCTTTT	GAGCTATTCA	CAAGACTTGA	AACATCACTA	TCAGCTCTAT	3960
CAACTCTTGC	TGTTTCACTT	TCAGAATAAG	GAACCGGAGA	AATTTTTCGA	ACTTATCGAG	4020
GACAATCTTA	AGCAGGTTCA	TCCTATTTTT	CAGACTGTCT	TTAAAACCTT	CCTCAAAGAT	4080
AAAGAAAAGG	TTATCAACGC	CCTTCAACTA	CACTATTCTA	ATGCCAAACT	GGAAGCGACC	4140
AATAATCTCA	TCAAACCTAT	CAAGCGCAAT	GCCTTTGGTT	TTGAAACTT	TGAAAACCTC	4200
AAAAACGGA	TTTTTTATCGC	TCTGAATATC	AAAAAAGAAA	GGACAAAATT	TGTCCTTTCT	4260
CGAGCTTAGC	TTTTTTTCAA	CCCACTACAG	TTGACAAAGA	GCCGGAAAAA	GGAACAGCCT	4320
TAGCTTTCCT	TTCAATTTCTT	TTTATTTCCC	TCGTAGTAAA	CGTGCTAGCT	TCCACAAAAC	4380
AAACAGGATT	CCCAGAAATG	CCAGTACCAC	TAGCCACCGG	TACAACCATT	GAGAGGTTGC	4440
AACACGCGAT	ACAGATTGTC	CTTCTTTCGT	AAAAGCAACC	CTCGCAACTG	CAGCTGTTTG	4500
TGGATCTGAT	TTTGTATAAA	CAGCGACTCG	TTCAAAATTC	ACTAATAAGC	GTTTATTAAA	4560
GGTAGGAATC	GGATCGCAGG	TTATCAAGGT	CATGATATTT	TTAGAGCTAA	CCGATTCTAA	4620

707

TTTTTCCCAT	TCCGACGGTA	AAATAATCTC	TGTGTCCATC	ATCTGATATT	CTACAATTTT	4680
CTGGCCATTA	TCATAATAAA	GAGCATCTCC	AACTTTTAGC	TGATCCAAAT	GGCGGAAAAA	4740
GACATGGCTT	GGCTCTGCAC	GGTGCCCAGC	AATCACTGAG	CGAATCCCTG	TACCATCCAG	4800
AGGCAGCGGT	GTACCATCCA	CATGAGCCAA	GCCCATCCCT	AAATGATGAT	AATCTGCTCC	4860
CAAATAAACC	GGCTCCATGA	TTTCCAAACT	TGGAATAGAC	AAGTAACCAT	AGACTGCATC	4920
AGGGTCGTCA	GACACTTGGT	AATTGACCTC	ATATCCCTCC	GCCAAAAAAG	GATCTACAAT	4980
GCGATTTTGC	GAAGCCAAGC	GTTGATTGTA	GGCGAGAGAA	TGGTCTGTGT	GTTCTTGGTA	5040
CATTTTCAGTT	GTCATGGATT	TCACAAATGT	AGCATGACCT	TTCACCTGTC	CAAGAGACTG	5100
CAACACCATC	TGTCCAAAAC	AATAAATAGG	AATCAAACAG	GCTACCAACA	TCAACAAGTA	5160
TCCCAATAAG	GCTCGTAGTT	TAGTCCTTGA	CATGACGCCC	CTCCAATTGC	TTTTCTAGTC	5220
CTTTGACAAT	CCGTCGATTA	CGATACACGC	GATACAGCAA	GAGAAGGATG	ACCGCCATCG	5280
CTCCTAGTAA	TAACCACAAC	CAGAATTGCC	CACGCTCTCT	CACCGCTCGA	TTCCGCTCTG	5340
CAATTGGTGC	CGTATACGGA	ATCCGCTTCC	CACGTACCAA	CAGACGATGA	CTGTTAATCA	5400
TATACGGTGT	ACAAGTCAAC	AAGGTCGCAT	AATCTTCCCC	ATGTTGAATC	AAGACAGGCT	5460
CAAAGTCATT	CGGCTCCACC	GTCACTATCT	GATCCACTTG	GTAGGCCAAC	ACCTGATCTA	5520
AAACGTGAAG	ATAAAAGATA	TCCCCTTTTT	TCATCTTATC	CAATTGACTG	AACAATTCTG	5580
CCGTGCGCAA	TCCTCTGTGA	GCAGTGATCA	CTGTATGGGT	ATTTTCACCT	CCAACAGGCA	5640
GCGAAGCCCC	TTCTAACAGC	CCTGCCCCCT	TCTGAAGAAT	GTCCTCACTC	GTTCCGACAT	5700
ACATCGGAAT	TTCCTGATCA	ATCGCAGGAA	TTTCCACATA	GCCAATCCGC	TCATGGACCT	5760
TTAGCATATT	GGCATATTCT	GAGACGCCTT	TCTTTTTTCTC	TTGCTCTGTA	AAAGGATCAA	5820
GAATTTCAGA	TGGTTTCAAG	GTCGCATTGA	AGGCTTGAGC	CAAGCGCCAA	CGCTCCTCAA	5880
GTTCTGCCTT	ATCCATCTGG	GAAACCGTCT	CATCAAACCTC	TTTAATAACC	TCGTTTGAAT	5940
CAATACGATA	ATAATAACGA	GACACCAATG	GATATATCGC	AACGGCGAAT	CCTACTAAGA	6000
AAATCAGAAG	AAGGATCAGC	GGATGTTTCT	TCTTTTTTGT	GCCTTTTTTTT	CGTGAACGTC	6060
TACTGTTGTC	CATCCTCCAC	CTTCACTTCC	TTCCTTGCTG	CTTTCAGCGC	CTTCAAAGCC	6120
TTTTCCGGTT	GTTTTTTTCTT	CTTGCGCAAG	CGTCGAATAA	TCCATAAAAG	AATCACAATC	6180
AAACCAACTG	CCACATAAAA	CAGGTAGCGA	TAGAGATGAC	TGAGTTTGTT	TGCTGCAATA	6240
AATTCTTCCT	CAACCTCTGC	TACGTACGGT	ATCCGATGCC	CCCGAACCBA	TAGACGATGG	6300
GTATTGATCA	TGTATGGCGT	ACAAGTCAGC	AAGGTCACAT	AATCATGACC	TGGTACAATC	6360

708

AATAAATCAT	CAAAGTTCGT	CGGCTCAATC	ACCTTTACTT	GATCCACTTG	ATAGGCCATC	6420
ACTTCCTTGA	TATTGTGCAC	ATAAACTTA	TCCCCAACTT	TAAGTTTGGT	CAAATCCGTA	6480
AACATCTTAG	CTGTTGGCAA	ACCTGTATGT	GCCGTAATCA	CCGCATGGGT	CGAATTGCCT	6540
CCGATCGGCA	GAGAAGTTCC	CTCTAGATGC	CCAGCCCCCTT	GCTGCAATAC	CTCTTCAGCA	6600
GTACCAGCAT	AAACCGGCAA	ATCCACGTCA	ATAACGGGGA	TTTCCACATG	CCCCATCCGC	6660
TCATGGATTT	CTAACATACG	TGCATACTCT	GCTCGCCCTT	TTTTCTTCAT	TTCTTCCGAC	6720
CAAGGATCGC	CACTCACTAC	ATTATTCAAA	GAGTCATTGA	AGGCTTGTGC	CAATTTTCATT	6780
CGTTCATCAA	TGTCAGCCTC	ATCCAACGTT	GCTTTTTTCCT	TATCAAAGTC	AGCAATTTGT	6840
TGATTTGATT	CCACTCGATA	ATACAAGCGA	GACACCAGCG	GATACGCCAT	TACCGCCATT	6900
CCAATGAAAA	ATACCACTCC	TAATAGGAGA	TTATTTTCGTT	TTTGCTTTTTT	TGTTTTTACC	6960
ATTTTTATCA	GCATCCCTTT	ATCTTCAAAC	TTCAGGGTAT	C		7001

(2) INFORMATION FOR SEQ ID NO: 89:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10411 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 89:

GAGGGAGCTT	AAGAAGTTAC	CACCGTCCTC	TAGCGCCTTA	TCCGCATCAA	AGTTAAGGTT	60
GATATTTTTA	AAACTGTCGC	CAGCTTGTGA	TACGATGCTT	TGTTTAAGGT	CATTTAGGGT	120
TTTAGTGAAA	TCTGCATTGC	TGAGGATATC	ACTCTTTGAG	AGATTCAAGG	CAAAATTGAT	180
GATGATATTG	ATCTGGTTTC	CTGTTATGAC	CTGATCAAGT	TTGTAATTTT	TTAAGGTATC	240
TTCAACAATC	TTGCGGATAT	CTTCTTCTGT	CAGATTTCCC	TTACTTTCTT	TAGCTTTGGC	300
GAGTCCTGAC	TTGATATCAG	CTAGGGCAAC	GTTTAATTTA	TTAGCATCAT	AGCCTGATTT	360
GTCCTTGTTT	TCAGCATTGA	TATCTGACAA	AGCTTTTAGC	TCTTCTTGAG	CCAAATCTTT	420
ATTAGCTTGT	GGCACCTTGG	CTCCATTAGC	CTCTAGCGAA	TAGTAAATCC	CTGCTAAAGC	480
ACTTTCTCCT	GTAAC TGGA	TAGGGGCTGC	TACAGTGATT	TTGGCATGTT	CCATACCCAG	540
CGTTACTGCT	GCGTTTCGGT	ACATATCCTG	AGTCACCTTA	GTGATATTTT	CTGGTGTTTC	600
AATCTTGACC	TCAAGTGGCG	ATTTGTCACC	TAGCTTTTGA	ATCTTGGCTG	ATGAATACAA	660
CTGTAAGCTA	GAGTCATTGG	CCACATTCAT	GATTTTAGAA	TAAACATCAG	GTGTCATGGT	720
CTTGAGTTCT	TTGGTATCTG	TTGAGGCATT	GTAGCCCAGT	TTTTTAAGAG	TTTGATTTTT	780

709

TTGGTCTTCA	GATAGGGAGG	AACCTAGGAC	ATATTCAGGT	TGGACATAGG	TTTCATCGAT	840
AACTTTTTGA	ACATCTGTTG	CTGCATGGAC	GCTATTCATA	GCTGTTACTG	CCCACAAGAT	900
CGCAGCGCTA	GTCAGAAAGA	GTTTCTTTCT	CATAGGGAAT	TTCCTCCTTT	ACTTCTTTAG	960
AGTAATATAT	CTATCTTAAA	GAAAACCTTAT	AACAAAAACA	CCTGGTCTAG	CCAGATGTTG	1020
AAAAGAGAGT	GAAACATTTG	ATGATGTAAA	GGTTAAGTCG	TACCTGTCTA	GAATAATAAT	1080
AGTTTCCTCC	ATTTACATAG	AGTTCAGCAC	CGTGAAAAAT	GGAAATGGGG	TGAATATAAC	1140
TATAAGTCTT	TCCAGTCCTA	TTACCAAGCA	AGGGGGCAAC	AGTCTCACGA	GAGTACTGTT	1200
TGGCTAGAGC	CAGGGTATTT	TCCTTGCCAT	TTTGGGCGAT	AAAATCGATA	TAGGCAGGTC	1260
CAAAATTATA	GGCTTGAACA	GCTGTCCAGA	TATCTACCCC	CTTCTTCTGC	GCCAGATAGA	1320
GATTGCCTGT	CAGAGTTTGA	ATGCCTTGCC	GAATGCTAGA	GGCATTATCA	TTGATGGTGT	1380
TGGTGGAACC	ACTTGCAGAC	TCACTAGACT	GCATAACATC	GCCTTCTTTT	CCTTTTGTTC	1440
CAGTATAAAT	CATAGCAAGC	ACAAGCTCTT	CGTTTGCTGG	GGTGTCTTGT	TCACTCAATA	1500
TTTCTCGCAC	CATGGGTTGA	TAGGTCATGA	CTTGTTTGAC	ATCTTGATGA	ACGCGGTAAG	1560
CTTTATAGCC	AGCAAAAAGG	AAGACTGCTA	GTACAAGCAC	TCTTCGAATT	CGTTTAAACA	1620
TTATTTACTT	TGGATATCCT	CGATATTTTT	GATTAAGATA	GAGTAGGTTC	CATTTTCGTT	1680
TTGGATAAAC	TCAACAGACT	CGGCGTCTTG	ATAGACGTTA	TTGGGAACGA	TGAGCTCAAT	1740
TCCATTTGAT	AAGGAGAGTT	TTTGGTTTTT	AAATTTCTTT	AATTGGCGAC	TGGCATCAAT	1800
TTCATCAAAT	TGAACAGGTT	CTGGTACGGC	TTCTTTGACT	TGGTCAATAA	AGCTCAAACG	1860
AGCCGTCAGA	TTGTTGTCAA	AAAGGTCATT	AGCCAATTTT	TCAGGTGACA	ATTCATTGCT	1920
TTCTTCTAGG	TTGTTGAAAA	TAGCTGATTT	GACCTTGGAT	TGAAATTGAA	AATCATCTGT	1980
GTTAAAAGAT	TTAGCAATTC	TCTGGGCTGT	TTTTTCCAGT	TCCTTGATAG	ATTTTTTAGG	2040
AGAAATCTTA	GGAGCGACAG	CAAGAAGATT	ATCTGAAAAA	TAGTTCAAAA	AAGTCCCGTT	2100
GTACTTGATT	CGTTTTTCAA	TCAGGTGATA	CTTGCTACTC	TGAAGATTGA	CCACCAAGGC	2160
CTCATCAGCT	CCTGTTCCAA	ATCCAGGCAG	GTTATTCTGA	GTTAGCTTGA	TTGGATTATC	2220
AACTTCTCCT	CCGAGGTGGG	TCAAGGTCTC	CCGCAGGGCA	ATTCGCAAGA	AAGCGAAATG	2280
TTCTACACCT	TCTTTAGAAA	ATTGCACAAA	AATCAAGTCA	TTGGTCTTGA	GATTTTCAGA	2340
AATGCTAAAC	TCCTCTTTCC	AGAGATTAGC	CAGCGTACT	GATGTCTCCA	ACAAATCGTC	2400
TGTAATATGA	TTGAAGAAGG	GATTTTCTTC	TTCGAAAATC	CCAGTCTTGG	CTTCATCTGA	2460
ATACACATGT	TCAATTTTTT	TACGCAGGTA	TTCTTCGATT	TTTGGAGTAA	TATTGAGAAA	2520

710

CTTATCTGCT	AAGAACAGTT	CGGTATCATC	CGGACTGAAC	TGGTGAATAA	TGGCTTTCTT	2580
AATATAAATG	TCCATAAAAG	TTTTAGTCCT	CGTATAATGG	GAAGGCATCT	GTCAATTCTT	2640
TGACTGCACT	TCTCACTTCT	TCTAATACAG	CCTCATTTTC	TGAATTCTTA	AGGGTTTTAA	2700
TGATGAGTTC	AGCCACTTTG	CGACTTTCTT	CTTCACCAAA	TCCACGTGCA	GTAATGGCTG	2760
CTGCTCCGAT	ACGAATCCCA	CTTGTCTTGA	ATGGTGACAA	GCTTTCGTAA	GGGATTGAGT	2820
TTTTATTTAA	GGTAATATTG	ACTTCATCCA	ACAAGTTTTG	AGCAACTTTG	CCGTTTTCTA	2880
CAACTTTAGT	CACATCAACA	AGGAAGAGAT	GGTTTTTCAGT	TCCACCTGAA	ATAATACGGA	2940
AATCAGGGTC	TTGCAAGAAG	ACATCTGCCA	TAGCCTTGCT	GTTCTTAATT	ACATTGGCAG	3000
CATATTCCTT	GAAGGCTGGA	TCCAAAACCTT	CTTTGAAGGA	AACTGCCTTA	GCCGCCACAA	3060
CATGCTCTAA	AGGACCGCCC	TGAATACCTG	GGAAAATAGC	TGAATTGATT	TTTTTAGCAA	3120
GTTCTTCGTC	ATTGGTCAAA	ATCAAACCAC	CACGAGGTCC	ACGAAGGGTT	TTGTGGGTGC	3180
TTGTTGTTGT	GATATGAGCG	TATGGAAGCT	GGCTTGGATG	AAGGCCAGCC	GCAACCAAGC	3240
CAGCGATATG	GGCCATGTCC	ACCATGAGCT	TCGCACCGAC	AGCATCTGCG	ATTCACGGA	3300
ATTTTGAAAA	ATCGATAATT	TGAGAATAGG	CTGAAGCACC	AGCTACAATC	AGTTTTGGTT	3360
TTACTTCTTG	GGCTTGTTTC	AAGATAGCAT	CAAAGTCTAA	GAGTTCGGTT	TTAGGATCAA	3420
CACTATAAGA	AACAAAGTTG	TAGGTTTGAC	CAGAGAAGCT	AACAGGAGCC	CCATGAGTCA	3480
AATGACCACC	TGATGCCAAA	TCCATTCCCA	TAACCGTATC	ACCTGGCTCA	ATCAAGGACA	3540
TGTAAGCCGC	ACAGTTAGCT	TGGCTTCCTG	AATGTGGTTG	AACATTGGCA	AATTTAGCAC	3600
CGAAAATTTT	TTTTGCGCGT	TCAATAGCAA	GAGTCTCTAC	AACGTCTACT	ACATCAGTTC	3660
CACCATAATA	ACGGCGTCCT	GGGTAACCCCT	CGGCATATTT	ATTTGTCAAG	ATAGACCCTT	3720
GAGCTGCCAT	AACAGCCTTG	GAAACTACGT	TTTCCGAAGC	AATTAACCTG	ATATTATTTT	3780
GTTGGCGTTC	TTCTTCTTTG	GCAATAGCAT	TCCAGAGATC	AGCATCATAT	GCTTTAAAAT	3840
CATCTTTGTC	AAAAATCATA	GGTCTTCTCC	TTTATTGTGT	GACTAGTCCA	TTAGTTTGAT	3900
TTTACAATAA	GAAAATCAAA	CTAACAGATG	CGAATAAACC	GTTTCTGCAT	TTTATCACAA	3960
GTATAGCCAA	CTTTTTTCATA	AAATGCATGA	GCACCCAGAC	GATGATTGGC	AGAATTTAAG	4020
CGGATAAACC	CATAACCACA	TCTTTTTGCT	TCTTCTTCCA	ACCCTTGTA	TAAACTTTTA	4080
CCAATACCTT	GACCTTGCGC	TTGAGGTGAA	ACTGCTAAAG	CTAAGATATT	AAATCCTGCT	4140
TTGGAATAGA	GTGATTCGTA	AACTTCAGCG	TGGACATATC	CAAGTAAGAC	ATGATTAGCT	4200
GCATCCTCAT	AGCCAAGTAG	GAAATGATGG	GAATCCTGAG	ACAGTCTAGC	TAGTTGGCTA	4260
GCCGTTTCCT	CTGGACTAAA	AGTATAACCC	AAAGCCTCTT	GGTTGATGTC	ACATATAGCT	4320

711

TTCACATCAG	TTTCTCTTAA	ATCTCTTAGC	ATCTCATTC	TCCTCAAAAG	AAATCTTTGG	4380
CAACCGAGCA	AGAATATCTT	CTCGCTTAAT	GGCCCCCTGA	CGTAAGATTT	TCACCTTGTC	4440
TCCCGACAAA	TTCAAAATAG	TTGAATCCTG	TCCAGTTAGA	AAAGCATCGT	CTTCCAGACC	4500
CAGAACCTCT	TGGTCAAAAT	CCTCTAGAAT	TTGATTAAAG	GTCACTCCAC	TCGCCTGACC	4560
TGAGATATTG	GCAGACGGCC	CAATCAAGGG	ACCTGTCTCT	CGAATCAAAT	CAAGGGTAAT	4620
GGGATGACTA	GGCATCCGAA	ATCCAACAGT	TGCAAGGCCA	GAATTGACCC	AATAGGGAAC	4680
TCGGTCATTA	GCTTCGAGAA	TAATGGTCAA	GGGACCTGGT	AAAAAGATCT	CTACAAGTTT	4740
TTGAAGATAA	GTTGGCTGAT	TCTTTGAAAA	GTACAAGATG	TCCTCTAAAG	AGGCAACATT	4800
GAGATTGAGC	GCCTTGCTCT	TACGTCGACG	TTTAAGCTGG	TAAACATGGT	CAACTGCTTT	4860
TTCGTCTAGC	GCCTTAGCAA	AGAGACCGTA	AACTGTCTCT	GTAGGCAAAA	CGACAGCTCC	4920
ACCATTTTCC	AACTCTTGTC	TAATCCTGTC	CATCATCAAC	GACAACCATC	CTATCTTGAC	4980
CAAATTGGTC	CTTGAGTGTT	CGTACTCGCT	TTTCAGGAAG	ATGTTTCCTA	AAAAGTTCAG	5040
GAACACTTTG	ACCTTGCTTG	TATCCAATTT	CAAGGTAAAT	CTTACCACCA	TCTTTGAGAT	5100
AGTCTTTTGC	ATCTTCCGCA	ATTCTACGGT	AAATAGCTAG	GCCATCCTCA	TCTGCAAAGA	5160
GAGCTAGATG	AGGCTCCGAA	TACAAGACAT	TCAAGCCTAC	CTCTGACTCA	TCTTCACGAG	5220
AGATATAGGG	TGGATTGGAA	ACAATTATAT	CATATTTTTC	AGAAATTTCT	GTAAAACAGT	5280
CAGATTTTTT	TAAAAATATT	TGAAGATTTT	GATTTTTTAGC	ATTTTCGCTA	GCTACATCTA	5340
AAGCATCTTG	GGAAATATCT	GCTGCCGTCA	CTGACCAATC	TGGTCTGTTT	TTTGCTAGAG	5400
CGAGAGCAAT	AGCTCCACTA	CCTGTTCCGA	TATCTAGGAC	CATAAGATTT	TTCACAGGAT	5460
TTTCAGCCAG	GATAAGCTCC	ACCAACTCCT	CTGTTTCTGG	ACGAGGAATC	AAAACCCGTT	5520
CATCCACCTT	TAAATGCATT	CCATAAAAAT	CTGCCTGTCC	AATGATGTAC	TGAGCTGGCT	5580
TGTGAGCTGC	TAGTTGCTGG	TAAATATCTT	CTACAAATTG	TTTTTCTTCC	TCTGTTGTCA	5640
CCTCCTGCTG	GAGGGCAAAA	ATAAAGTCTG	TAAAAGATAG	ATTTTTCAGA	CTACGATAGA	5700
CAAAAGAGAG	GCTTTCCGCT	TCCTCTCCTT	GTCTTATCAA	CTCTTCTTCA	AAATTTGAAA	5760
ATAATTGAGC	TAATTTCAAT	ATTTGTTTAA	TTCTTCTAGT	TTTTGTGTTT	GGTCATAAAG	5820
CACCAAGGCA	TCCACAACCT	CGTCCAATTT	ACCAGACAAA	ATCGTATCTA	GTTTTTGGAG	5880
GGTCAAGCCG	ATACGGTGGT	CTGTGACACG	GTTTTGTGGG	AAGTTATAAG	TTCGGATCCG	5940
TTCTGAACGG	TCACCAGTAC	CGATTGTCTG	CTTACGCTCA	GCGTCCTGCT	CATCTTGAGC	6000
AATCTGAGCA	AAGTGGTCAG	CAACACGGGC	ACGGATGATT	TTCATGGCCT	TCTCACGGTT	6060

712

CTTCTGCTGG	GTACGTTCTT	CCTGCATCTC	AACCTTGATA	TTGGTTGGCA	AGTGAACGAT	6120
ACGAACGGCA	GTCGCAACCT	TATTGACGTT	CTGTCCACCA	GCACCAGAGG	CGTGATAGAT	6180
GTCGACACGA	AGGTCTTTTG	GATCAATGTC	GTATTCAACC	TCTTCAACTT	CTGGCATAAC	6240
AAGAACTGTC	GCTGTCGAAG	TATGAACACG	GCCTTGGCTT	TCTGTCACAG	GAACACGTTG	6300
CACACGGTGG	GCACCTGATT	CATACTTAAG	CTTAGAGTAT	ACAGACTGAC	CTGAAACCAT	6360
AGCAACCACT	TCTTTAAAC	CACCGACACC	ATTCATAGAG	GCTTCCATGA	CTTCAAAGCG	6420
CCAACCTTGG	GCTTCCGCAT	ACTTTTGGTA	CATAGTTAGC	AAATCTCCAG	CGAAAAGTGC	6480
CGCTTCGTCT	CCACCAGCTG	CTCCACGGAT	TTCAAGGATG	ATATTCTTGT	CATCGTTTGG	6540
ATCCTTTGGA	AGGAGCAAAA	TTTTCAGTTT	TTCTTCATAT	TCTTCTTTTT	CAGCCTTGGC	6600
ATCTTTGAGT	TCTTGCTTGG	CCAATTCTTC	CAAGTCCGCA	TCTCCGCCTG	ATTCCTTAAT	6660
CATCTCTTCG	GCATCGACGA	TATTTTGAAG	GACTTGTTTA	TACTCACGGT	AGGCTATTAC	6720
GGTGTCACGA	TTGGAAGCTT	CTTCTTTTGA	AAGCTCCATA	AAACGCTTGG	TGTCTGAAAC	6780
GACATCAGGG	TCATCAGCA	ATTCTCCTAA	TTCTTCATAA	CGGTCTTCTA	CAACTTGTAG	6840
TTGATCATAG	ATGTTCAATT	TTTCTCCTTA	TTTCTCAATT	GTTAAATCAT	AGATTGCTAC	6900
TACTTCATTC	TCGGATATTT	CCCCAGTTTC	TTTAAATCCA	TAACTGAGGT	AACAAAATCT	6960
TGCCTGTTCA	TTTTCTGGTT	CATATGACAA	CCAAAGTTTA	TTGCTTAAAC	CTGCTGGCGC	7020
TGTTCAACA	TAGTCTAGTA	CTTTATCCAT	AATTGGTTTA	AAATATCCTT	GATTTTGAAA	7080
ATTCTTATCA	ATCATAAAAC	GAAATAGTAA	ATAATTTCCA	CTACTAATTC	CGATCTTTTT	7140
ATCATAAGCT	ATCATCACAA	AACCTATAAT	TGCATCATTA	TCATAAACTG	CCAATGGAGC	7200
TACAAAATCT	CCATTTTATG	TGTAGACGTA	TGCTTCAGCT	AAACTAATTG	CGTTGGTTGC	7260
AATGAATTGT	TTTTGATATT	CCTTGACATC	CAAATTTAAA	ACATCAAAAT	AATTTTCCAT	7320
TGTAACATCT	CTTAGTTCAA	TTGTCATAGT	TTTGCTCCTT	GTTAGAGGTT	ATCATTGGCG	7380
CAAAATAATG	TTTACGGCAA	ACTGAGATAT	AGGTTTCGTT	ACCACCAATC	TGGATCTGTT	7440
CTCCATCGTA	AACGGGCAGT	CCATCCTGTG	TTGCAACAC	CATGGTCGCC	TTTTTCTTGC	7500
AATACTGACA	GATGGTCTTG	ATTTCTGTC	TCTTGTCTGC	TAAAAGCAAG	AGATATTTGG	7560
AACCTTCGAA	CAATTCATTG	CGAAAGTCAT	TTTTCAAGCC	AAAAGCCATG	ACGGGTATGT	7620
CTAACTCGTC	CACAACACGA	GCTAGGTCGT	AAACATGGTG	GCGTTTGAGA	AACTGGGCTT	7680
CATCGACCAA	AACACAGTAA	GGTTTTTCTG	GTAGGTCTCG	GATATAGCCA	AAGATATCCG	7740
TTGTTTCCTC	AATCGCAAG	GCAGGGCGTT	TCATGCCAAT	TCGACTCGAC	ACATAGCCAA	7800
CGCCGTCACG	CGTATCCAGA	GCCGAGGTCA	TAATCACAAC	ACCTTTTCCT	TGCTCCTCGT	7860

713

AGTTATAGGC	CACTTTGAGA	ATCTCAATCG	TTTTACCAGA	G TTCATGGTC	CCATAACGAT	7920
AGTACAACTG	TGCCATGTTT	CTTGCTTCAC	GTCCATTTCT	AAATTTTTCG	TACATTCTAG	7980
TATATCATAA	TTTTCTTAAG	CTTTAAACGG	CAAAATGTGG	TAAAATAGAA	GAAATCAAAA	8040
ACTAGTGGAG	GAAGCTATTA	TGCCATTTGT	ACGCATCGAT	TTATTTGAAG	GACGCACGCT	8100
CGAGCAAAAG	AAAGCTCTTG	CTAAGGAAGT	AACGGAAGCA	GTTGTCCGCA	ACACTGGAGC	8160
CCCTCAATCT	GCTGTCCATG	TCATCATCAA	CGACATGCCA	GAAGGAACTT	ACTTCCCACA	8220
AGGGGAAAATG	CGTACTAAAT	AAGCTAGCTT	AAGCAGAATT	GCTTAGGCTT	TTTCAATCTC	8280
CAAGTAGCAT	TCATTGAAGA	AATATCCTAA	ATTTGTTACA	ATTTGAAAAG	AAACTTGAG	8340
AATTTCCAAG	AAAAGAGCTA	TTAATTAAAG	GAAACATTAT	GATTACACGT	GAATTTGATA	8400
CCATCGCTGC	TATCTCTACT	CCACTAGGTG	AAGGGGCTAT	TGGTATTGTC	CGCCTGAGCG	8460
gAACAGACAG	TTTTGCTATT	GCGCAAAAGA	TTTTTAAAGG	AAAAGACTTG	AACAAGGTTG	8520
CCAGCCACAC	TCTCAACTAC	GGTCACATTA	TTGATCCTCT	GACTGGTAAA	GTCATGGACG	8580
AGGTTATGGT	TGGGGCTATG	AAGTCTCCAA	AGACCTTCAC	TCGTGAGGAT	ATTATCGAGA	8640
TTAACACCCA	CGGTGGGATT	GCGGTGACCA	ATGAAATCT	CCAGCTAGCT	ATTCTGTAAG	8700
GGGCTCGGTT	GGCAGAACCT	GGTGAATTTA	CCAAACGTGC	TTTTTTAAAC	GGTCGCGTAG	8760
ACTTGACACA	GGCAGAGGCT	GTGATGGATA	TCATCCGTGC	CAAGACTGAC	AAGGCCATGA	8820
ACATTGCGGT	CAAACAATTA	GACGGCTCCC	TTTCTGACCT	CATTAACAAT	ACCCGTCAAG	8880
AAATCCTCAA	TACACTTGCC	CAAGTTGAGG	TCAATATCGA	CTATCCTGAG	TATGACGATG	8940
TTGAGGAAGC	CACTACTGCT	GTTGTCCGAG	AGAAGACAAT	GGAGTTTGAG	CAATTACTAA	9000
CCAAACTCCT	TAGGACAGCA	CGTCGTGGTA	AAATCCTTCG	TGAAGGAATT	TCAACGGCTA	9060
TCATTGGACG	TCCCAACGTT	GGGAAATCAA	GCCTTCTCAA	CAACCTCTTG	CGTGAGGACA	9120
AGGCTATCGT	AACAGATATC	GCTGGGACAA	CACGAGATGT	CATCGAAGAG	TACGTCAACA	9180
TCAATGGTGT	ACCTCTCAAA	TTGATTGATA	CAGCCGGTAT	TCGTGAAACG	GATGATATCG	9240
TTGAACAAAT	TGGAGTTGAG	CGTTCGAAAA	AAGCTCTTAA	GGAAGCTGAC	CTAGTTCTGC	9300
TAGTACTAAA	CGCTAGTGAA	CCACTAACCG	CCCAAGATCG	CCAACCTCCTA	GAAATCAGTC	9360
AGGAGACTAA	TCGCATTATT	CTTCTTAACA	AAACTGACCT	GCCTGAAACG	ATTGAAACTT	9420
CGGAACTACC	TGAAGATGTC	ATCCGCATTT	CAGTTCTTAA	AAATCAAAAC	ATCGATAAAA	9480
TCGAAGAGAG	AATCAACAAC	CTCTTCTTTG	AAAATGCTGG	TTTGGTTGAG	CAAGATGCTA	9540
CCTACTTGTC	AAACGCCCGT	CACATTTCCCT	TGATTGAGAA	GGCCGTTGAA	AGCCTACAAG	9600

714

CTGTTAACCA AGGTCTTGAA CTAGGGATGC CAGTTGACTT GCTTCAAGTT GACTTGACCC	9660
GTACTTGGGA AATTCTAGGA GAAATCACTG GAGATGCTGC TCCAGATGAA CTCATCACCC	9720
AACTCTTTAG CCAATTCTGT TTAGGAAAAT AAGAAAAATC CATGATCCTT CATTCGGTCA	9780
TGGATTTTAG GTTCTATAAT ATTTGTTAGTG GGTAATCCA CTATAGATAT TATGGAGCCT	9840
ATTTTATTGT AGAAAAAAG TCCCATATGA CCTATAATGA AAAGCGACAA AACAACTCAT	9900
TAGAAAGAAT CATATGGAAC AATTACATTT TATCACAAAA TTACTAGACA TTAAAGACCC	9960
TAATATCCAG ATTTTAGACA TCATCAATAA GGATACACAC AAGGAAATCA TCGCCAAACT	10020
GGACTACGAC GCCCCATCTT GCCCTGAGTG CGGAAACCAA TTGAAGAAAT ATGACTTTCA	10080
AAAAACCTTC TAAAATTCCT TATCTTGAAA CGACTGGTAT GCCCACTAGA ATTCTCCTTA	10140
GAAAGCGTCG ATTCAAGTGC TATCACTGTT CAAAAATGAT GGTCGCTGAA ACTTCTATCG	10200
TCAAGAAGAA TCACCAAATC CCTCGTATCA TCAACCAAAA GATTGCTCAA AAGTTAATTG	10260
AAAAGATTTC TATGACTGAT ATTGCCCATC AGCTTTCCAT CTCAACTTCA ACTGTTATTC	10320
GTAAGCTCAA TGACTTTCAC TTAAACATG ATTTTCTTG TCTTCCTGAG ATTATGTCTT	10380
GGGATGAGTA TGCTTTTACA AAAGGAAGA T	10411

(2) INFORMATION FOR SEQ ID NO: 90:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2393 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 90:

GTTTTGGGTT CTGGAAATTA TCAGATGGTT GGAAAAGCCG TCCACATCAA GATAGTGTTT	60
GGAGATTTAA GTTTAAATTG AAGAACTAA CACAGAGGAA ATGGAGTATA GACCTAACAA	120
GACGTATTGA GCAACTGAAT TTGTCTATTC GAGGATGGAT AAACATATTG TCATTGGGAA	180
ATATGAAAAG TATAGTCGCC AGCATAGATG AGCGCTTGCG TACTCGCCTA CGAGTGATTA	240
TCTGGAAGCA ATGGAAGAAG AAATCGAGAC GATTATGGGG ATTGCTTAAG TTAGGAGTTC	300
CTAAATGGAT AGCAGATAAG GTATCTGGCT GGGGCGACCA TTATCAATTA GTAGCTCAGA	360
AGTCGGTACT TAAACGTGCT ATATCAAAAC CAGTCCTGGA AAAACGTGGA CTGGTTTCGT	420
GTTTGGATTA TTACCTTGAA CGACATGCGT TAAAAGTTAG TTGAACCGCC GTATGCCAAA	480
CGGCACGTAC GGTGGTGTGA GAGGGGCTAG AGATTATCCC CTA CTGATT AACTCCCCTG	540
AAATTTATTT TAATTATGCA AATTTACGT ATTTTGTATG CTGAGACGAC GATCCTGGGA	600

715

ACTTTTCAGA	TATTTTTTTG	ACTATCTAAA	TCTATCATTA	GAAAAGCTTA	GAGCGCCAAA	660
GGATTTGAGC	GTTTTTCTGA	TTTTTAAGAC	TTTTTCCAGT	CTCTTTTTCG	ATTGAAGATG	720
TAATTATTCT	ACTAACTAAC	TAAGTTCTTA	GTACTAGCCA	ACAACGATAA	TCATAATTCC	780
TCCTAAAATT	AGGAATAATA	AAGGCAATAG	TTTTTGTTTT	TTCATGTAAA	AAACCTCACT	840
TTTGTTTTCT	GCTATTTTAT	GCTAAAATAT	TAAAAATCAA	ATTTAATTCC	AAAGTTTGTA	900
ACTAAAGGGG	GAGCGCTACA	TGTCTAATTC	ATTTGTCAAG	TTGTTAGTCT	CTCAATTATT	960
TGCAAATTTA	GCAGATATTT	TCTTTAGAGT	AACAATCATT	GCTAACATAT	ACATTATPFC	1020
AAAATCAGTA	ATTGCCACAT	CACTAGTTCC	TATCTTAATA	GGAATATCCT	CTTTTGTTGC	1080
GAGTCTTTTA	GTTCCGTTGG	TTACTAAAAG	GTTAGCGCTA	AATAGGGTTT	TATCTTTATC	1140
TCAATTTGGA	AAGACTATAT	TATTGGCGAT	ACTGGTAGGA	ATGTTTACCG	TAATGCAATC	1200
CGTAGCGCCT	TTGGTGACCT	ATCTATTTGT	TGTTGCAATT	TCCATACTAG	ATGGTTTTGC	1260
AGCACCCGTT	TCCTATGCTA	TTGTGCCACG	CTATGCGACC	GATTTGGGTA	AGGCTAATTC	1320
AGCCTTATCA	ATGACTGGTG	AAGCTGTTCA	ATTGATAGGT	TGGGGATTAG	GTGGACTCTT	1380
GTTTGCAACA	ATTGGTCTGT	TACCTACCAC	GTGTATCAAT	TTAGTCTTGT	ATATCATTTT	1440
TAGCTTTCTG	ATGTTATTTT	TTCCTAACGC	TGAAGTGGAG	GTGTTAGAGT	CAGAAACTAA	1500
TCTTGAAATT	TTGCTCAAAG	GTTGGAAGTT	AGTTGCTAGA	AATCCTAGAT	TAAGACTTTT	1560
TGTATCAGCA	AATTTATTGG	AAATTTTTTC	AAATACGATT	TGGGTTTCTT	CCATTATACT	1620
TGTTTTTGTA	ACGGAGTTAT	TAAATAAAAC	GGAAAGTTAC	TGGGGATATT	CTAATACAGC	1680
ATACTCTATT	GGTATTATAA	TTAGTGGCTT	AATTGCTTTT	AGGCTATCTG	AAAAGTTCCT	1740
TGCTGCTAAA	TGGGAACCCC	AATTATTAC	CCCAAATCTA	AAAACCATCC	AGAATCCTTG	1800
CCTTAGCTTA	GATCCTGGAT	GGTTTCTTTT	TTCACCCAAT	GGGTGTTTTT	TACTAGACAA	1860
AAAAGAGTTT	CCCCTTTATG	GTATAAGTGT	AGAAAAAAC	ACAAAAAGAA	AGGAAACTCA	1920
CATGAACAGT	TTACCAAATC	ATCACTTCCA	AAACAAGTCT	TTTTACCAAC	TATCTTTTGA	1980
TGGAGGTCAT	TTAACCCAGT	ATGGTGGTCT	TATCTTTTTT	CAGGAACTTT	TTTCCCAGTT	2040
GAAACTAAAA	GAGCGGATTT	CTAAGTATTT	AGTAACGAAT	GACCAACGCC	GCTACTGTCT	2100
TTATTCGGAT	TCAGATATCC	TTGTCCAGTT	CCTCTTTCAA	CTGTTAACAG	GTTATGGAAC	2160
GGACTATGCT	TGTAAAGAAT	TGTCAGCTGA	TGCCTACTTT	CCAAAATTGT	TGGAAGGAGG	2220
GCAGCTTGCT	TCACAGCCAA	CCTTATCCCG	TTTTCTTTCC	AGAACTGACG	AGGAAACAGT	2280
CCATAGTTTG	CGATGCCTCA	ACCTTGAATT	GGTCGAATTC	TTTTTACAGT	TTCACCAGCT	2340

716

AAACCAACTC ATTGTAGATA ACGATTCTAC CCATTTACACA ACTTATGGCA AGC 2393

(2) INFORMATION FOR SEQ ID NO: 91:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 4762 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 91:

TTTGTATCTT TTTAGGTCTC TTTCAATCCA AACCCCTTAA ACTATACGTC ATTTCCGGTTC	60
CTGCAAGTCT TGTGGTAATT TTAGGTTTGA TTTTACTTTT CTTTTCACAA GAGCCTCTGC	120
ACGCTTCTTA TTTGATGGTC GTCTTCCCTG TTTTCCTACT TTTATTGGTA ACCAATATTA	180
AGAGTCAACA GAGGGGGCGT AGTGCTAGAA GAAGCCGAAG AGAAACGCCA TTATGCCTAT	240
GGAGTCGTTT CTTCAAAGGA AATCTATATC TGCTAGTTTT TGGGTTTGTC TATCTTTTGT	300
CTGTTCCCTT TTTGATGAAG TTTGTCCTTT ATCCAGTACC TTATCAAGAA CGTAATCGTC	360
TTGCTGATTT GGTAAGAG GAGACAAATA CGGAAGATGC TATCTCATGC ATGGGATGAT	420
ACTGCGACTC TTTATCGTAA GAGTGAGCGC TTGTCCCATC GGCGATTTTG TCCCCGTTGC	480
ACTATACAGC AACTGAGGAA AATCGTAATA AGTTACTTAA TGAAGTGAAA GAAAAACAAC	540
CTAAGGTGAT TGTGGTAAAT GATAAGGTGG TAGTCTGGTC TGAAGTGAA AACTCTTAA	600
AAGAAAATTA CCAACAAGTA AAGACTGATT ACTCAGAGTT TAAAGTCTAT AAAATTAAAT	660
AACCAAATCA ATATCTTG TG TATTTTTTAAA AATTTTAGGA TTTTAAACAC AAGATATTGA	720
TTTTTCTTTT TAGAGTGGTA TAATACTTTT TAGAAAGAAC ATTTTAGAAA AGAGCATGCA	780
TATGATTGCA CTAGAAGAAA AAATTACAAT TTTGCCAACT CTCTTCGTCG AGAAACGAGA	840
TGGGAGACGT GTTGTATTTG ATGTGGACAA GATTGACAAG GCTCTCCACA AGGCGGCTGA	900
CAAGGTTATG GATGTGACAC CCCTGGTTGA AAAATGCCTC AATGATCTGA CTGAGCGAAT	960
TATTACAGAA ATTCATAGTC GCTTTCACACA GGGAATTAAG ATTTACGAAA TTCAAAATAT	1020
CGTAGAACAT GAACTCCTTG AAGCCAAAGA ATATGCGCTG GCTGAGGAGT ATATTACTTA	1080
TCGGACACAG AGGGATTTTG AGCGCTCAAA AGCGACGGAT ATCAACTTTA GTATTCATAA	1140
ACTTCTCAAC AAAGACCAGA CAGTTGTCAA TGAAAACGCT AATAAAGACA GTGATGTCTT	1200
TAACACTCAG CGTGATTTGA CAGCAGGGAT TGTTGGGAAA TCAATCGGAC TGCAAATGCT	1260
TCCTAAGCAC GTAGCCAATG CCCACCAAAA GGGGGATATC CACTATCACG ATTTGGACTA	1320
CAGTCCCTAT ACCCCTATGA CCAACTGCTG TTTGATTGAT TTTAAGGGTA TGTTGGAAAA	1380

717

TGGTTTTAAG ATTGGAAATG CAGAGGTAGA GAGTCCCAAG TCTATCCAGA CTGCGACAGC	1440
ACAGATTTCT CAAATCATTTG CCAACGTTGC TTCTAGCCAG TACGGTGGCT GTTCAGCTGA	1500
CCGTATCGAT GAAATTTTGG CGCCTTATGC AGAGAAGAAT TATCAAAAAC ATCTCAAAGA	1560
TGCAGAAGAG TGGGTATTGC CTGAAAAACA GGAAGATTAC GCTTGGAAGA AAGCGCAAAA	1620
GGACATCTAC GATGCCATGC AATCTCTTGA GTATGAAATC AATACTCTCT TCACTTCAAA	1680
TGGACAAACA CCTTTTACTT CGTTAGGTTT TGGTCTGGGA ACCAGTCGTT TTGAACGAGA	1740
AATTCAAAAA GCTATTTTAA ACATTCGCAT CAAGGGTCTT GGTTCAGAAC ACCGTACGGC	1800
TATCTTTCCT AAACCTTATCT TTACGCTTAA AAGAGGCCTC AACTTAGAGG AAGGAACTCC	1860
CAACTATGAC ATCAAGCAGT TGGCTCTAGA GTGTGCAACC AAGCGGATGT ATCCAGACGT	1920
CTTGTCTTAT GATAAGATTG TTGATTTGAC AGGTTCTTTC AAGGTGCCTA TGGGCTGCCG	1980
TTCTTTCCTT CAAGGGTGGA AGGATGAAAA TGGTGTAGAA GTCAATTCAG GTCGCATGAA	2040
TCTGGGTGTT GTGACGGTTA ATCTGCCTCG TATTGCTCTT GAGTCTGAAG GTGATATGAA	2100
TAAGTTCTGG GAAATCTTCA ACGAGCGAAT GAATATCGCA GAAGATGCTC TTGTTTACCG	2160
TGTCGAACGC ACTAAAGAGG CGACACCAGC GAATGCTCCT ATTCTTTATC AGTACGGTGC	2220
TTTTGGCCAT CGTCTAGGTA AAGAAGAAAG TGTTGACCAG CTCTTTAAGA ATCGTCGTGC	2280
GACCGTTTCG CTGGGCTATA TCGGCTTGTA TGAAGTAGCG ACAGTTTTCT TTGGTAACAG	2340
CTGGGAAAGT AATCCAGATG CTAAGGAATT CACGCTAGAC ATCATTACAG ATATGAAACG	2400
CCGTGTAGAA GAGTGGTCAG ACCAATATGG CTACCATTTC TCTATCTACT CAACACCATC	2460
CGAAAGTCTG ACAGACCGTT TCTGCCGACT AGATATAGAC AAGTTTGGCT CTATTCCTGA	2520
TATCACAGAC AAGGAATACT ACACCAACTC TTTCCACTAC GATGTTTCGTA AAAATCCAAC	2580
ACCGTTTGAA AAATTGGACT TTGAGAAAGT CTATCCGGAA GCAGGTGCGT CAGGTGGTTT	2640
CATCCATTAT TGTGAGTATC CAGTCCTTCA GCAAAATCCA AAGGCCTTGG AAGCTGTCTG	2700
GGATTATGCT TATGACCGTG TAGGCTATCT AGGCACCAAT ACTCCGATTG ACCGTTGCTA	2760
CAAGTGTGAC TTTGAAGGGG ATTTTGAACC AACTGAGAGA GGGTTTGCTT GTCCAAACTG	2820
TGGCAATAGC GACCCTAAAA CAGTAGATGT GGTGAAACGA ACTTGTGGCT ACCTAGGTAA	2880
TCCTCAAGCA AGACCGATGG TCAACGGGCG TCACAAGGAA ATCGCTGCGC GTGTCAAACA	2940
TATGAATGGT TCAACGATTA AAATAGCTGG GCATCAAGTA ACAAATTAGA AAGAAATGAA	3000
ATGGGAAAAT ATCAACTAGA CGATAAGGGG CGCGCACAAAG TGACCCGTTA TCACGAGAAA	3060
CACTCTAAAG GTGGAGCTGG TAAGAAAGAA CGCTTGCTTA GCTTCAGAGA ACAATTTTAA	3120

718

AACAAGAACA	AGAAAAAATA	AAAGTGAGAG	CCAGCTCTCG	CTTTTCTCAT	AGTGGGAGGT	3180
AAGGATGGAA	TTACGCAGAC	CAAGATTAGC	GGATAAGAAA	GCTGTTTTAG	ATATGATGAC	3240
AGAGTTTGAA	AAATTTTCAGT	CGCCTCACGA	CGGCGGTTTC	TGGGATACAG	AGAACTTTGT	3300
GTATGAAGAC	TGGTTAGAAA	GCAATCAGGA	ACAGGAAATG	GGGATTAATC	TGCCTGAAGG	3360
ATGGGTTTCT	GCAATTCAGT	TAGTGGCTTT	TTCTGAGAAA	GGTCAAGCAG	TTGGATTTCT	3420
TAACTCTCCG	TTGCGCCTCA	GTAACTTTCT	ACTAGAAGAA	GGTGGCCACA	TTGGCTACTC	3480
CATTCGTCCA	TCTGAAAGAG	GCAAGGGTTA	TGCAAAAGAG	ACTCTCCGTC	AGGGCTTGCA	3540
AGTTGCTAAG	GAAAAGAACA	TCAAGAAAGC	TCTGGTGACC	TGTAGTGTGA	ATAATCCTGC	3600
TAGCAGAGCA	GTCATTCTAG	CAAATGGTGG	AATATTTGAG	GATGCTCGCA	ATGGAGTCGA	3660
GCGTTATTGG	ATAGAGGTAG	CGAATGAATA	ATCCAAAACC	ACAAGAATGG	AAAAGCGAGG	3720
AACTTAGTCA	AGGTCGTATC	ATTGACTACA	AGGCCTTTAA	CTTTGTGGAC	GGCGAAGGCG	3780
TGCGCAACTC	TCTCTATGTA	TCAGGCTGTA	TGTTTCACTG	CGAGGGATGT	TATAATGTTG	3840
CGACTTGGTC	TTTTAATGCT	GGCATTC CCT	ATACAGCAGA	ATTAGAAGAG	CAGATTATGG	3900
CAGACCTTGC	CCAACCCTAT	GTTCAAGGCT	TGACTTTGCT	GGGAGGGGAG	CCTTTTCTCA	3960
ATACTGGGAT	TCTCTTGCCA	CTTGTTAAGC	GGATTCGGAA	GGAATTGCCA	GACAAGGACA	4020
TCTGGTCCTG	GACCGGCTAC	ACTTGGGAAG	AAATGATGTT	GGAACTCCA	GATAAACTGG	4080
AATTCTTGTC	ACTGATTGAC	ATTCTTGTCG	ATGGAAGATA	TGATCGAACT	AAGAGAAATC	4140
TTATGCTCCA	GTTTCGAGGT	TCATCTAACC	AACGAATTAT	CGATGTGCAA	AAATCGCTCA	4200
AAAGTGGGCA	AGTAGTGATT	TGGGACAAGC	TCAATGACGG	AAAAGAAAGC	TATGAACAGG	4260
TGAAGAGAGA	ATGAAGAAAA	AGGACTTAGT	AGACCAACTA	GTCTCAGAGA	TCGAGACGGG	4320
GAAAGTCAGG	AACTGGGAA	TATACGGTCA	TGGAGCTTCA	GGTAAATCAA	CCTTTGCACA	4380
GGAATTGTAC	CAAGCTTTAG	ATTCTACTAC	AGTAAATTTG	CTAGAGACAG	ATCCTTATAT	4440
CACCTCAGGA	CGCCATCTGG	TAGTACCCAA	GGACGCGCCG	AATCAAAAGG	TGACAGCCAG	4500
TCTGCCAGTG	GCGCATGAAC	TGGAGAGTTT	GCAGAGAGAT	ATCCTTGCTT	GCAGGCGGGT	4560
ATGGATGTCT	TGACAATTGA	AGAACCTTGG	AAGGCTAGTG	AGGTCTTGTC	TGGAGCCAAA	4620
CCAATTTTGA	TTGTGGAAGG	GATGTCTGTT	GGCTTTCTAC	CCAAGGAACT	CTTTGAAAAA	4680
ACCATCTGTT	TCTACACGGA	TGAGGAGACC	GAATTAAAGC	GACGCCTTGC	TAGAGATACG	4740
ACTGTGAGAA	ATCGCGATGC	GG				4762

(2) INFORMATION FOR SEQ ID NO: 92:

(i) SEQUENCE CHARACTERISTICS:

719

(A) LENGTH: 3832 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 92:

GATGCAGGTT TCGACCCACA TATTCCAGAA AATTACTTTA AAGATGATGA TGTTAATCAG	60
GTACCTTGTC TTTGTTGGTC TTCATCTGCA GCCCTCTTTT TCAGTAATTG GGTAGACCAT	120
GCGGTCTATC AGGAGACGCC TTTTGATTGG AGAAAGATAG AAGATGATGC ATCTGCATAT	180
GGGTATTTAT AAGAGGAATT ATGACATATT TAGACGCTTT TAAATCAGGT ACCTTGGTTT	240
TACCGAGTGC CCTGCTCTTG CATTTTAAGG AACTCTTTCC TTCTAGCGAC GATTTTCTGG	300
TTTGGCAATT TTTCTATTTG CAAAATACGA CAGGCTTAGA AGAAATGTCG CCAAGCCAGA	360
TTGCTGAAAG GATTGGCAAG GAAATTTTCGG ATGTCAACCA GTCCATTTCT AATCTGACGG	420
AAAGGGGACT GCTCCAGTAT CGTACTATCG AATTAAATGG CGAAATTGAA TTGCTCTTTG	480
ATGCTAGTTT GGCCTTGGAA CGTTTGGATG ACCTGTTTGG AGCAGTTCAT TCAAGTTCAG	540
ACCAGCTAAC ACCTCAAAAC CAGCTCAAGG ATTTGGTGGA AACCTTCCAG CAGGAGTTGG	600
GACGATTGTT GACGCCTTTT GAGATTGAGG ATTTGACCAA GACACTAAAG GAAGATGGAA	660
CCAGTGCTGA CTTGATTAAG GAGGCTCTTC GTGAAGCTGT TTTGAATGGA AAACCAAAC	720
GGAAGTACAT TCAGGCGATT TTGAGAACT GCGCCATGA AGGAATCAAG AGTGTGGCTC	780
AAATTGAGGC CAAGAGAGCA GAAAGAGAAG CAAGCAATCC TCAGTTGACA CAGGTATCTG	840
CAGATTTTAT AAATGCCATG GATCTCTGGA AGGATTAATC CATGCAAGTA GGCTTGAAAT	900
CCGAGTAAGA TTTGCAAGCT GTGTATAATT GTGATAGAAT AAATAGAAAA TAAATTGAAA	960
AAAGAGGTAT GTGAAATGTC ACGTAAACCA TTTATCGCTG GTAACCTGGAA AATGAACAAA	1020
AATCCAGAAG AAGCTAAAGC ATTCGTTGAA GCAGTTGCAT CAAAACCTTC TTCATCAGAT	1080
CTTGTTGAAG CAGGTATCGC TGCTCCAGCT CTTGATTTGA CAACTGTTCT TGCTGTTGCA	1140
AAAGGCTCAA ACCTTAAAGT TGCTGCTCAA AACTGCTACT TTGAAAATGC AGGTGCTTTC	1200
ACTGGTGAAA CTAGCCCACA AGTTTTGAAA GAAATCGGTA CTGACTACGT TGTTATCGGT	1260
CACTCAGAAC GCCGTGACTA CTTCCATGAA ACTGATGAAG ATATCAACAA AAAAGCAAAA	1320
GCAATCTTTG CGAACGGTAT GCTTCCAATC ATCTGTTGTG GTGAATCACT TGAAACTTAC	1380
GAAGCTGGTA AAGCTGCTGA ATTCGTAGGT GCTCAAGTAT CTGCTGCATT GGCTGGATTG	1440
ACTGCTGAAC AAGTTGCTGC CTCAGTTATC GCTTATGAGC CAATCTGGGC TATCGGTACT	1500

720

GGTAAATCAG	CTTCACAAGA	CGATGCACAA	AAAATGTGTA	AAGTTGTTTCG	TGACGTTGTA	1560
GCTGCTGACT	TTGGTCAAGA	AGTCGCAGAC	AAAGTTCGTG	TTCAATACGG	TGGTTCGTGT	1620
AAACCTGAAA	ATGTTGCTTC	ATACATGGCT	TGCCCAGACG	TTGACGGTGC	CCTTGTAAGT	1680
GGTGCGTCAC	TTGAAGCTGA	AAGCTTCTTG	GCTTTGCTTG	ACTTTGTAAA	ATAATCAGTA	1740
AGTAGCAAAA	GCTAGGTGGA	ACAGCATTCA	GATGTCTGTT	ACATTTTTTA	TAGGAGAGAA	1800
AGATTGAAAA	CAAAAATTGG	ATTAGCAAGT	ATCTGTTTAC	TAGGCTTGGC	AAC TAGTCAT	1860
GTCGCTGCAA	ATGAACTGA	AGTAGCAAAA	ACTTCGCAGG	ATACAACGAC	AGCTTCAAGT	1920
AGTTCAGAGC	AAAATCAGTC	TTCTAATAAA	ACGCAAACGA	GCGCAGAAGT	ACAGACTAAT	1980
GCTGCTGCCC	ACTGGGATGG	GGATTATTAT	GTAAAGGATG	ATGGTTCTAA	AGCTCAAAGT	2040
GAATGGATTT	TTGACAATA	CTATAAGGCT	TGGTTTTATA	TTAATTCAGA	TGGTCGTTAC	2100
TCGCAGAATG	AATGGCATGG	AAATTACTAC	CTGAAATCAG	GTGGATATAT	GGCCCCAAAC	2160
GAGTGGATCT	ATGACAGTAA	TTACAAGAGT	TGGTTTTATC	TCAAGTCAGA	TGGGGCTTAT	2220
GCTCATCAAG	AATGGCAATT	GATTGGAAAT	AAGTGGTACT	ACTTCAAGAA	GTGGGGTTAC	2280
ATGGCTAAAA	GCCAATGGCA	AGGAAGTTAT	TTCTTGAATG	GTCAAGGAGC	TATGATGCAA	2340
AATGAATGGC	TCTATGATCC	AGCCTATTCT	GCTTATTTTT	ATCTAAAATC	CGATGGAACT	2400
TATGCTAACC	AAGAGTGGCA	AAAAGTGGGC	GGCAAATGGT	ACTATTTCAA	GAAGTGGGGC	2460
TATATGGCTC	GGAATGAGTG	GCAAGGCAAC	TACTATTTGA	CTGGAAGTGG	TGCCATGGCG	2520
ACTGACGAAG	TGATTATGGA	TGGTACTCGC	TATATCTTTG	CGGCCTCTGG	TGAGCTCAAA	2580
GAAAAAAAAG	ATTTGAATGT	CGGCTGGGTT	CACAGAGATG	GTAAGCGCTA	TTTCTTTAAT	2640
AATAGAGAAG	AACAAGTGGG	AACCGAACAT	GCTAAGAAAG	TCATTGATAT	TAGTGAGCAC	2700
AATGGTCGTA	TCAATGATTG	GAAAAAGGTT	ATTGATGAGA	ACGAAGTGGA	TGGTGTCATT	2760
GTTCGTCTAG	GTTATAGCGG	TAAAGAAGAC	AAGGAATTGG	CGCATAACAT	TAAGGAGTTA	2820
AACCGTCTGG	GAATTCCTTA	TGGTGTCTAT	CTCTATACCT	ATGCTGAAAA	TGAGACCGAT	2880
GCTGAGAGTG	ACGCTAAACA	GACCATTGAA	CTTATAAAGA	AATACAATAT	GAACCTGTCT	2940
TACCCTATCT	ATTATGATGT	TGAGAAATTGG	GAATATGTAA	ATAAGAGCAA	GAGAGCTCCA	3000
AGTGATACAG	GCACTTGGGT	TAAAATCATC	AACAAGTACA	TGGACACGAT	GAAGCAGGCG	3060
GGTTATCAAA	ATGTGTATGT	CTATAGCTAT	CGTAGTTTAT	TACAGACGCG	TTTAAAACAC	3120
CCAGATATTT	TAAAACATGT	AAACTGGGTA	GCGGCCCTATA	CGAATGCTTT	AGAATGGGAA	3180
AACCCTCATT	ATTCAGGAAA	AAAAGGTTGG	CAATATACCT	CTTCTGAATA	CATGAAAGGA	3240
ATCCAAGGGC	GCGTAGATGT	CAGCGTTTGG	TATTAAGCGA	TGATTTGAAA	GAGGGATGTG	3300

721

ATAGTAGCAC CCTCTTTTTC TTTGTTTTAT GATAGTTCAT CCTCGAGTAA ATTCAAGTTC	3360
TTGCTCGGAA ATGAAGCTTA TATAGTAGAT TGAATATAGA CAAATACCTT GTGATTGGTA	3420
AAACATTTTA GAAATTCATT TACCTTTCCT AATCGACTTG GTTTCATCTT ATTTCAATCT	3480
ATTATAGTAT TGGGGAATTT CTTCAAACCA CATCAGCTTG GTCAGTTCTA CCTGCGACCT	3540
CAAACTTGT GCTTTGGTCA AGCTGGGTTT AGTTTCCTAG TTTGCTGATG GATTTCCATT	3600
GACTATAAGC ATCCAACCCT CTTTTTGTCT TCTAAGAAT TCTTAAATTA TCAGTCTATT	3660
GCAACTTTTC TCATATAAGT TCTTTGTCTT GCTATTGGTT TTCCTTAGTA GTATACTAAG	3720
GTAGTAATCA TTAAGAAGTG GTTACAAAAA ATAATGAATG AGGTAAAGAA AATGGTAGAA	3780
TTGAAAAAAG AAGCAGTAAA AGACGTAACA TCATTGACAA AAGCAGCGCC GG	3832

(2) INFORMATION FOR SEQ ID NO: 93:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10690 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 93:

TGAAAAAATC CTCATGAACC TGGCGCCAAT AGACAAGTGT CTTGTTTCCC TCACCTTCCT	60
TATAGGCATG GTCAGCTGAC ACTCGATTGA AGGGTTTAAC AGAAACCTTT GTAATTTCGA	120
CAATGCAGAC AGCCTGATTT TGACTATCTA AAATGACATC GAAGGTCCCT ACTTGGGGAA	180
GTGGTTCGTC TTCTAGCACA TAGAGGTCAT AGGCTGATGC TGTGCTGTC TTTTCTCCTT	240
TAAACACCAA ATCCGCTAAA AGGTCTGGTT CAACTCCAAA AGCCCAGGCA TCGATTTTCAT	300
CTCCGATCAA AGGATTGATT TGCTTGTATT TATTCCACAT TTCTTGCGGT ATCATGGGTG	360
CTCCTTTGTA ATTTTTTACT TTCTTCTTTT ATGTGTTTAA GATGATCTGG ATGGTCAATC	420
TCTAAATCAA AAATCTCTGG AATAGAACTG TAGTGGATAA TGCACCTGAT ACCCAACTGA	480
TTCATTTTTT GTATGAAAGA AGTATTCAGA TAGCCTGCTA CAGCAAAATC AATCTTGTTT	540
TTTCTTGCTT TATCCTGCAT ATCTCTTAGC ATATCTAACA TTATTGGACT TTCCATATCA	600
TGCCATTGAC TGTTCCTCAT AGTCGCAAAA ACAAAGGAAG TCAAATCATT CATTCCAACT	660
ACAATCTTTG AAATGCCCGT TTCCAGTATA CTAGATAAGT CAAAATACGC TGACGGTAAT	720
TCAATCATCG TTCCGACTTT CCCAGTAAAA CCCTGCTGAC GCAATACTGT AATAGCTTGT	780
TTTAATTGGT CGGCATCATT GACAAAAGGA AAGATAACAG ATAGATTGGG GTTGGTTTGA	840

722

TAAACTTCTG	TAACGACATG	TGCTTCAGCC	TGAAATTTCAT	CCAAACACGC	CAGTAAACGC	900
CTAGTTCCTC	TATAGCCAAA	CAAGGGATGC	CCTTCGTCAA	AAAACCTCTT	AGTCCCCACT	960
AAACAATTGG	CTTCTGTATT	CGTTAATTCA	GTAAAACGAT	ACCAAACCTC	CTTACCTAAG	1020
TAAAAGGAGC	AAATAGTATC	AAGATAATCT	TTCACAAATT	CCTGACAACT	TTGTAATAGT	1080
ATATTTTGAT	TGAGCTCTCT	CAATAAGTAT	TCCCCACGAA	TCATGCCGAC	GTGGTGAAAT	1140
AGTTGAGGAT	AAATTTTTTC	AAGAATTTTT	TCGCCACTAA	GGGCAAGTTG	ATTTCTCATC	1200
ATTCACCTTC	CAATTCATGT	AAGAAGTCTT	GTCCAGTTCT	GGAAATCCTA	ATAATTCAGA	1260
CTTAACCTTC	AAGACTAATG	GCGATGCATT	TTCTTCTGTA	ATCTCTTGAA	TATCCATCCA	1320
AATATATCCA	AGTGAATCAT	TCGCACCATC	AGACACAGCT	TCCGAAATCG	TAACTTGAGG	1380
TGCACTCTCA	TTCAATTTCAA	CATCATACAA	GGCTATGACA	TGGTGAACCA	TAAAATTTTT	1440
TAACTCTTCC	CTGACGAAAA	CATCGTAGAT	TCGAGGATTA	GAGTAGCTTC	TAACAGTAAA	1500
TCCCGTCTCT	TCCATAACTT	CTCTAGTCAG	CGTTTCCGTC	AGTCCTTCAC	CAAGTTGCTG	1560
ACTGCCTCCA	GGTAGATCAT	ACCGATGTTG	ATAAGGGCCT	CTCGTTTTTT	CAATGCAAAG	1620
TAACTTTCCA	TTTTCAAAGC	AAACACAGTA	GACCCCAAAG	TGATTTTTGA	TTTCCATCCA	1680
ACTCCTCCTA	CTTCAAAGAC	CAGCCACCAT	CTATTGTCAA	GATTTGTCCT	TGCATGGCGC	1740
TCGCTTTTCC	ACTTGCTAAA	AAAAGACTAA	GCTCTGCTAT	TTCTCTGGC	TCAATCCAGC	1800
GCTTGATTGG	GGTTTCACTA	GCCACCCAGT	CAGCCAAACC	ACCTGGTTCA	AAATCCGCAG	1860
CGGTCATAGC	TGTCTTGACT	GCTCCTGGAG	CGATACCAA	GACCTGAATC	CCAGCTTCAG	1920
CATAGTCTAG	AGCCAACTGC	TTGGTGAAGC	CAGCCAAGGC	ATGCTTGGAT	GAAGTATAGG	1980
CGTGACCACC	TCCACCTGCT	AGGCTAGAAG	CAATGGAACA	CATATTGATG	ATGATTCCCT	2040
TTTTATTTTC	CAGCATTTGT	GTCAAATAAT	ACCGAGTCAA	CTCTACTGGA	ATAATGTAGT	2100
TGATTTCAAA	AATCTCTTGA	ATGTCCTGCG	CCGTTTGTTT	CAACAGTGGT	TTGTAATCAT	2160
CCAAAACCTC	AGCAGTATTA	CACAAAACAT	CCACCTGAGG	GCACCAGTCA	AAAATAGGTT	2220
CCAAGTCCAA	GGTCAAATCT	CTCTGTAAAA	AGCGAAAATC	ACCCTCTAAG	AGTGGCTTTT	2280
CACCTTGGTC	AACTCCATAA	ACTTGATAGC	CCTTCTCTAA	AAAGAGGCGA	GCTTGAGCCA	2340
ATCCGATCCC	TGAACTCACT	CCTGTAATGA	GTACACGTTT	AGTCATGCAC	TTCTACCCAA	2400
TCCGTTGCCA	AAACATCACA	AACTGTCGGG	CTCCACATGG	AAAAACCTTC	TCCTTCGCCA	2460
GAAACGTTGA	TTAGGAAATA	AGGTGTCATT	TCAAGTGCAA	GCCCATTTTG	CTCGATGGTA	2520
TCAAAGAGTT	GGACATAGTT	TTCCGCACCT	CCCCAACCAG	TTCGTACATA	TTTTCTCTTA	2580
GCCTTTAACC	CAGGCAGGAT	CTCTTCAAAT	GTCATGTTTT	TCTCCTTTAA	TTCTACATTC	2640

723

TTCATTTAAT	TATAGCAAAA	AACCGCTTTA	TACGGCTTTT	TGAATGTGAG	TTATTCAAAC	2700
CTGCTACTAC	TTACGGCAAA	TTATTCCCTG	CAGCAAGATA	AATTTTCATAC	CATTCTTTTC	2760
TTGTTAAGCT	AAAGTTTGCC	GCTCGGCTAA	CTTCTCTCAA	GTGCTTAGGA	TTTGTTGTAC	2820
CTACGACTGC	CTGCATTTTT	GCTGGATAAC	GCAATATCCA	AGAAATGGCA	ATAGTTGAAG	2880
AGGTACTACC	ATATTTAATA	GCTAAACGAT	CAAGTACTTG	ATTTAAAGCT	TGAAATTTCT	2940
CATTTCCAAC	AAAATTCCCT	TTAAAATACC	CGAATTGTAA	GACAGACCAT	GCTTGAATGA	3000
CCACATCGTG	TAATTGGCAA	TATTCAAAAA	TGCTGCCATC	TCGCATAGCT	GCTTGACTAT	3060
CTTCCATATT	AACATGAAAA	GCTGATTCAA	ATCCTGGAGT	AAAAGCCGCA	CTCAATTGTA	3120
GCTGATTAAC	AGCTAACGGC	TGCTTGACAT	CTTTTTTAAG	CAACTCCATC	ATCATAGGAT	3180
TTTGATTAGA	AACTCCAAAA	TCTCGAACTT	TACCTTGTTT	ATAAAGGAGA	TTAAAGGCTT	3240
CTGCTACTTG	GTCAGATTCC	ATCAAAGCAT	CTGGTCGATG	AAGGAGCAAG	CTATCTAGAT	3300
GATCAATCTT	CAATCTTTGC	AAAATACCGT	CTACTGATTT	TATAATATAG	TCCTTAGAAA	3360
AATCAAAATA	GGTAAATTCT	TCAATGCGAA	TGCCACATTT	GGACTGAATC	CACATCTTTT	3420
CTCTTAAATC	TGGACGATTT	TTTAGGACAA	GACCTAACAG	TTCTTCACAA	CGACCACGAC	3480
CATAAATATC	AGCCAAGTCG	AAGGCATTGA	TTCCAACAGA	AAGTGCTGTT	TCTACAAGCT	3540
CTTCAACTTC	TTTTACAGAT	TTATCTTTTA	TTCTCATCAT	TCCGAGAACA	ATTTCTGATA	3600
ATTCTTTGTC	ATCTTGACCA	AGAGTTATGT	ATCTCATCAA	ATTTTCTCTC	TTTAATTTCT	3660
AACATTCTTC	CCTTCATTAT	AACAAAAAAC	CGCTTTGCAA	CGACTTTTTG	ACTATACTTC	3720
ACTCCATTTT	ATCTTCTTAA	ACCCACGGAA	CAAGACAAAG	ATTCCAATAA	AGAGGACAGC	3780
TAAAGGAATA	ACTTTTGTA	GGAAAACATT	TGAAATTCCC	ATCCACTCAT	AATAACGGAG	3840
CAGAGAACCC	ACCACAAGAT	GGGCAATAAT	CATACTGACA	AATGGACGAA	AGACCGCTTC	3900
TTTCCAATTC	CAAATACCGA	TAAGTAGCGA	AATCGTAAAG	ACAGACAAAC	TATCCCAGGG	3960
AGCCGGAATA	TAAAAGGCTC	CTTCTTGAT	GAAGCTTGCC	ATTCCCTACAT	ATCCTAAAAC	4020
AACTAGAAGA	ACTATAGTCC	CAACAACAAT	GTAAGTGCCA	ATTTTCATTT	TAGGAGAATC	4080
TTGGACTAAA	CTTCTTCGTA	AAATTGTGGC	CACAAGTCCA	AATCCAATCA	GAAAAATAAG	4140
AAGTTGCCCT	AAAAATGTGA	GCAAATTGAC	TGTAAAGAGA	GGACCTTTAG	AAAAATCACT	4200
TAGTAGTTGA	TAATAACGTA	ATACCGCCAG	GACAAGAATT	GGCGTCAAAA	GGGACTCTTT	4260
GATAGAACTG	CGAGGTGCTC	CCTTGAGAAT	CTCTTTCATT	ATTTTTTTAG	GATTCTTACC	4320
TAGATAATCC	TCTGCACTCA	TGCCATCTCG	TTCTGCTTCT	GAGAAATCTA	GCATCATCAA	4380

724

ATAGATCTGC	TCTCTGAGAT	AGTCTTCATC	ATAGAGAAAT	CCAGCAAGAT	TAAAACTTTC	4440
CCACAACCTCC	TCAAAATACT	TTTGATTCTC	CTCAGAAAAC	TCATGTAGCA	AAGCGCTTGT	4500
TTCTTCGTAA	TACTTCATTT	TCTTCATGGT	TTAACCCCCA	TTCTTAATCC	CTTCTACTTT	4560
TTGACTCAAA	TCGTCCCATT	GTTGCCAAAA	GACTGAGACA	CGCTCTTCTC	CTTCTTTCAT	4620
TAATGAAAAA	TACTTCCGAT	CTGGACCATC	TGGCGACGGG	CGCATGTCGC	CTCTTATCCA	4680
TTGATTTTTT	TCTAACTTTT	GCAACAAAGG	ATAAATAGTT	CCTGGAACGA	TAGTATCAAA	4740
TCCAGCCTCT	CGCAAAGTCT	GAACCAACTC	ATAACCATAC	CGCTCTTTTT	GACCAATCAT	4800
ATCCAAGACA	CAACCTTCAA	GAACACCTTT	TAATAGCTGA	GTTTCTTTCA	TCACTTCTCC	4860
CTTCTAATCT	ATTTTGTAAT	ACCTACTAGT	GACTTCACCT	ATAGTATATC	ACTTCTACAC	4920
TAGTTTGTA	AGCATAATAG	TTAATACTCT	TCGAAAATCT	CTTCAAACCA	CGTCAGCGTC	4980
GCCCTACCGT	ATGTATGGTT	ACTGACTTCG	TCAGTTTCAT	CTACAACCTC	AAAAACATGT	5040
TTTGAGCTGA	CTTCGTCAGT	TTCATCTACA	ACCTCAAAAC	AGTGTTTTGA	GCTGACTTCG	5100
TCAGTTTCAT	CTACAACCTC	AAAACAGTGT	TTTGAGCTGA	CTTCGTCAGT	TTCATCTACA	5160
ACCTCAAAAA	CATGTTTTGA	GCTGACTTCG	TCAGTTTCGT	CTACAACCTC	AAAACAGTGT	5220
TTTGAGCAAC	CTGCGGCTAG	CTTCCTAGTT	TGCTCTTTGA	TTTTCATTGA	GTATAAATAA	5280
AAAAACAGAA	CTAGCCTGAA	CTAGTCCTGT	CTACTTTTAC	CCAATCACAC	TTCCATTTGG	5340
TACAGCTGGA	TCAACTGTGA	GAAGGGTTAA	TTTGCCATCA	TGTTTCAGCTG	AGAGAATCAT	5400
ACCCTGGCTG	ACATATTTTT	TCATCATTTT	ACGTGGTTTG	AGGTTAGCAA	CGATTTGAAC	5460
TTTCTTGCCG	ACCAATTCTT	GTTCAATTTG	ATAGTATTTT	GCAATTCCTG	AAAGAATCTG	5520
ACGATCTTCT	CCATCACCAG	CATCCAAGCG	GAATTGAAGC	AACTTATCTG	AACCTTCTAC	5580
TTTAGACACT	TCTTTGACTT	CTGCGACACG	GATTTCAACC	TTGTCAAAGT	CTTCAAACCT	5640
GATTTTCATCC	TTGTTTAGTT	TGAGCTCAAC	TTCGTCCGGA	TTCCATTCTT	TTTCGACTGC	5700
TGGTTTATTG	CCTTCCATTT	GTTCCCTGAT	ATAGGCGATT	TCTTCTTCCA	TATTTAGACG	5760
TGGAAAGATA	GGTGTTCCTT	TGGCAACTAC	AGTCACATCT	GCTGGGAAGT	CAGCCAAACT	5820
CAAGTTTTCA	AGACTAGAAA	CTTCTTCCAA	ACCAAGTTGA	GTCAAAACTG	CACGACTAGT	5880
TTCCATCATA	AATGGTTCAA	TCAAGTGAGC	AACTACACGA	ATGCTGGCTG	CCAAGTGGCT	5940
CATGACACTT	GCCAATTGGT	CACGAAGAGC	TTCATCCTTG	GCCAAGACCC	ATGGTGCGGT	6000
CTCATCGATG	TATTTATTGG	TACGAGAGAT	CAGAGTCCAG	ACTGCTTCAA	GCGCACGTGG	6060
ATAGTCAACT	GCTTCCATGT	GTGTATGGAA	GTCTGCGATT	GATTGTWCTG	CAACCTCAGC	6120
AAGAACATGA	TCATATTCAG	TCACACCTTC	TACATAGGCA	GGGATTTGTC	CATCAAAGTA	6180

725

CTTATTAATC	ATGGAAACCG	TACGGTTAAG	GAGGTTCCCA	AGGTCATTAG	CCAATTCATA	6240
GTTGATACGG	CCGACATAGT	CTTCAGGAGT	AAAGGTTCCG	TCTGAACCAA	CTGGAAGGTT	6300
ACGCATGAGG	TAGTAACGAA	GTGGATCTAG	TCCATAACGC	TCTACCAACA	TTTCAGGGTA	6360
AACGACATTC	CCTTTTGA	TAGACATTTT	TCCGTCTTTC	ATGACAAACC	AACCATGGGC	6420
AATCAAACGA	TCAGGTAATT	TAACATCCAA	CATCATAAGA	AGGATTGGCC	AGTAGATAGA	6480
GTGGAAGCGA	AGGATATCTT	TTCCTACCAT	ATGGAAGACT	GTTCCATTCC	AGAACTTGTC	6540
AAAGTTACCA	TGTTCGTCTT	GAGCGTAGCC	AAGAGCTGTC	GCATAGTTAA	GAAGGGCATC	6600
AATCCAAACG	TAGACAACGT	GTTTTGGATT	TGATGGGACA	GGCACTCCCC	ATGTAAAGGT	6660
TGTACGAGAT	ACCGCCAAAT	CTTCCAAGCC	TGGCTCGATG	AAGTTGCGTA	GCATTTCAAT	6720
AAGGCGACCA	TCTGGCGTGA	TAAATTCAGG	ATGAGCTTTG	AAAAATTCGA	CCAAACGGTC	6780
TTGGTATTTG	CTAAGGCGAA	GGAAGTATGA	TTCTTCAGAA	AcCCATTCAA	CCTCATGACC	6840
TGATGGAGCA	ATACCACCAG	TCACATTTCC	AGCTTCATCA	CGGAAAACCT	CTGCCAGCTG	6900
GCTTTCTGTA	AAGAATTCTT	CGTCTGATAC	TGAATACCAA	CCAGAGTATT	CACCCAAGTA	6960
GATATCATCT	TGAGCAAGTA	AGCGTTCAAA	GACTTGTGCG	ACAACTTTTT	CATGGTAGTC	7020
ATCAGTTGTA	CGGATAAATT	TATCGTATGA	GATATCTAGT	AATTGCCAGA	GTTCTTTAAC	7080
TCCAACCGCC	ATTCCATCAA	CATAGGCTTG	AGGTGTAATA	CCAGCTTCTT	CCGCTTTCTG	7140
CTGGATTTTC	TGACCATGTT	CATCAAGACC	TGTCAGATAA	AATACATCGT	AGCCCATCAG	7200
GCGTTTGTA	CGTGCTAGGA	CATCACATGC	GATAGTTGTG	TAGGCAGAAC	CGATATGAAG	7260
TTTCCCAGAT	GGATAGTAAA	TCGGCGTTGT	AATATAAAAA	TTTTTTTTCAG	ACATAATTTT	7320
TCCTTTCCAG	GCAAATGAAA	CCTGTTTTTC	TAACACTTCA	TTATATCACA	TTTTTAATGA	7380
ATTTCAATAG	GGAAATCCAT	ACAAAAACAA	GATAGACGAG	TGTCCATCTT	GTTGATCTCA	7440
TTCATAACGA	AGGGCTTCAA	TTGGATCAAG	TTTCGATGCC	TTGTTGGCTG	GCAAGACTCC	7500
AAAAATCATA	CCAACACTAG	CCGAAACTGC	AAGACTAAAT	AGGGCGACTG	GGATTGATAC	7560
TCCAACCTCT	ATACCTTCTA	TTAAACCTTG	CAGTAACAAA	CCTGCTAAGg	CAGTTAAACC	7620
ACTTGCAATT	GTCAAGCCAA	TTAAGCCACC	TAACAAGGTC	AAAATCATGG	ATTCAATCAA	7680
AAACTGAATT	AAAATATTGG	CACGTGTTGC	ACCCAAAGCC	TTACGAAGAC	CAATCTCACG	7740
AGTGCGCTCT	GTCACCGAAA	CCAGCATGAT	GTTTCATGACA	CCAGTTCCTC	CAACAAAGAG	7800
AGAAATCCCT	GCGATGGAAC	TAATAATCGT	CGTCATAAAA	CTAAACGATT	GTTGAATTTT	7860
TGCAAATACA	ACGGACTCAT	CTGCCACCTG	GTATTCTCCC	TGTTGTAAGC	CTGCAAGCTC	7920

726

TGTCATTTTT	CGTGCCAGTT	CTGGACCCAG	AGTTGGGGTT	AAACTGGTAT	CATTCACTCG	7980
AAAGACAATA	TTAGCTATTT	CATCTACATT	AAAATTCGCA	GCAAGGGAGA	TATTGGTAGT	8040
AATAGGCAAG	CCACCAAACC	CATATATTTT	TGATCTTTTA	GCCTCCGGAC	TAGTATAAAC	8100
CCCAATGACC	CGGTAATAA	ATCCATTGAC	TTCTACAACC	TTGTTAATAG	CCTCTTGAGG	8160
AGATTCAAAT	AAACTAATGG	ACAATTCCTC	ATCTAGCAAA	ATGACACTTG	CAAACCTCTT	8220
GAAATCTTGC	TCTCTCAGAC	TACGACCTGC	AATAATTTCA	TTCTTAACAG	CGTCCATGTA	8280
AGTTCTGTTT	CCACCTGTCA	AATTAGCATT	CTCAACCTTT	TTATCTTGAT	AGGTCAAGAT	8340
GGCATTCGTT	GAATTGGTTA	CATAGTAACT	ATCCACTCCC	TTCAGTTTAG	CTGCCTCTTG	8400
GACCCAGGAT	TCTTGCGGTT	TTGGCGGTTT	AACAGGAACT	TCCTCTTCCT	TTCCAGAAAC	8460
CGTAAAAGCT	GATTGTTTCT	GAGTAAAAGA	CCCGTCTTTA	CTTTTTTTTAG	GAGAGAAAAA	8520
GACGCTAATA	TTTTTCTGAG	ATTTAGTCAT	ATCTTTATTG	ACTTGACGAG	ATAGGGAATC	8580
ACCCAAAGCC	ATAATCACAA	CAACTGATGA	AACACCGATA	ATAATCCCAA	TCATAGTAAG	8640
CAAAGAACGC	ATCTTGTGAG	CCATGATAGA	TGAAAAGGCA	AATTTTCAGAT	TCTGCATCTT	8700
AGTTTTCTCT	CTTTCCTAAC	TGAGCACTGT	CAGACGAAAT	GACCCCATCC	CGAATGACAA	8760
TCTGACGTTT	GGCATAGGCA	GCAATCTCAG	GCTCATGCGT	TACCATGATA	ATGGTTTTTC	8820
CTTCTTTATT	CAAATCAACC	AATAATTGCA	TAATTTGGTT	ACCTGTTTTG	GTATCCAAGG	8880
CTCCTGTCGG	TTCATCCGCT	AGGATAATAG	AAGGATTGTT	TACCAAGGCA	CGCGCAATGG	8940
CTACACGTTG	CTTTTGACCA	CCAGATAATT	CTGAAGGTAA	ATGGTGACTA	CGTTCTGTCA	9000
ATTCAACCTT	GTCTAAATAT	TCCTCAGCCA	ACTTGCGACG	TTTTGAAGAC	GAAACTCCTG	9060
CGTAAATCAA	GGGCAATTCT	ACATTTTGCA	GAGCATTGAG	CTTCGATAGA	AGAAAGAACT	9120
GCTGAAAGAC	AAAACCGATT	TGTTGGTTAC	GGACCTTAGC	TAGTTGTTTT	TCACCAAGCC	9180
CAGCCACTTC	TTGACCTTCA	AGATAATATT	CTCCACTGGT	TGGTGTATCC	AACATGCCAA	9240
TCGTATTTCAT	CAGAGTGGAC	TTACCAGACC	CAGATGGTCC	CATGATGGCT	ACAAATTCAC	9300
CCTCATTCAC	TTCTAGATTG	ATATTTTTGA	GAACCTGCAG	TTCTTGGTCA	CCATTACGGT	9360
AACTTCTGAA	GATATTTTTT	AGACTAATTA	GTTGCTTCAT	CAGCCTTCAC	CTCTTTTCCT	9420
TCTTCCAAGG	AAGATGTTGG	ATTACTGATG	ACCTTAGCAC	CGTTCGTTAA	ACCAGAAGTG	9480
ATTTCTTGAT	TTTCTGCGTC	AGCATTTCCC	AATGAAACCT	CAACTTTTTT	AGCCTTTTGT	9540
TGTTTCATCCA	CAATCCAGAC	ATAATTTTTA	CTATCATCCA	TTACTAGACT	GCTAACAGGA	9600
ACAAGAATAG	CCTTAGTTTT	GCTTTTAACC	TCAATGTTGA	CAGAAAAACC	TTGTTTCAAA	9660
TCACCAACCT	CGCCTGTCAC	ATCAATAGTA	TAAGGGTATT	TAGAACCTGT	ATTATTCCCG	9720

727

GCTGCTGGAC TAGCTGCTTC ACCATTGTTT TTAGGATAGT CAGAAATATA GCTTAATTTTC	9780
CCAGTCCATT TTTTATCAGG ATACACTTTA GAAGTAAAGC TTACTTCTTG ACCTACAGAA	9840
AGGTGGCTA GATTGTACTC AGACAATTCT CCCTTGACTT GTAAATTTTC ATTGCTGACA	9900
ATATGAACCA TAACTTGACT CGCCCCTGTT GGAGATTTAG AAACATTGCT ATTGACTTCG	9960
ACCACAGTTC CCTCTAGGGT ACTGAGAACA GTTGTTCAT CCAATTGACT TTGAGCCTTG	10020
CTTAATTGCG CCGCAGCATC TGCACGCGCA TCACGGGCAT CACCCAATTG AGCGTCAATA	10080
GAAGCAACAG AATTTCAGC CACTGGAGTT GGGCTTTGCA CCGTTGCATC TTCTCCTCCT	10140
ACTGGCGCTG GTAAGTGTGG AGCCGGAGCT GAAGCGGCTT CATTCGTGC TTGATTGAGT	10200
TCATTGATAT GACGATCTGC CCTAGCTACT GCTCGACTAG CTGAATCATA GGCCGCCTGC	10260
GCTTCTGAAC TACTGTACTT GACTAAAGCC TGCCCTTCGC TGACCTTATC GCCCACAGAA	10320
ACAAGGATTT CATCTAAATC ACCCTTACTA GCATCAAAAT AAACATATTG TTCATTTTTT	10380
GCTGTTACTG TCCCTGACAA TAAAACAGAG GAGGCCACGC TTCCTTCCTT GGCAACAACA	10440
AGATGAGTAG GTCATCTTT TAGAGCAGTC TGAGAAGGTT GTCTAAAGAG TAAAATCCCC	10500
CCAGCACCCA ATACAACTAC ACTCGCAGCA CCGATTGCTG CATAAGTTG CCACTTTTTA	10560
GCTTTACCAT TCTTTTCTT CATAATGAAA CTCCTTTTCT TTTTACAAT ACTTTGCTAT	10620
TATACCAAAT TTCCCTCCAG CAAACAATAC AGTTCAGGAT TAAACAATCG TTCGGAATTT	10680
TGCTTTTCGG	10690

(2) INFORMATION FOR SEQ ID NO: 94:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8195 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 94:

GAGAAAGCGC CCACGTTTCC CCGAAGGGAG AAAGGCGGAC AGGTATCCGG TAAGCGGCCA	60
GGGTCGGAAC AGGAGAGCGC AACGAGGGAG CTTCCCAGGG GGAAACGCCT GGTATCTTTA	120
TAGTCCTGTC GGGTTTCGCC ACCTCTGACT TGAGCGTCGA TTTTGTGAT GTCGTCAGG	180
GGGGCGGAGC CTATGGAAAA ACGCCAGCAA CGCGGCCTTT TTACGGTTCC TGGCCTTTTG	240
CTGGCCTTTT GCTCACATGT TCTTTCCTGC GTTATCCCCT GATTCTGTGG ATAACCGTAT	300
TACCGCCTTT GAGTGAGCTG ATACCGCTCG CCGCAGCCGA ACGACCGAGC GCAGCGAGTC	360

728						
AGTGAGCGAG	GAAGCGGAAG	AGCGCCCAAT	ACGCAAACCG	CCTCTCCCCG	CGCGTTGGCC	420
GATTCATTAA	TGCAGCTGGC	ACGACAGGTT	TCCCGACTGG	AAAGCGGGCA	GTGAGCGCAA	480
CGCAATTAAT	GTGAGTTAGC	TCACTCATTA	GGCACCCCAG	GCTTTACACT	TTATGCTTCC	540
GGCTCGTATG	TTGTGTGGAA	TTGTGAGCGG	ATAACAATTT	CACACAGGAA	ACAGCTATGA	600
CaTGATTACG	AATTCGAGCT	CGGTACCCGG	AAAATCCAGA	AAATGCTTGA	AAAAAATCCT	660
AGAAGATGGT	ATAATACTAA	ATTGTAAGGG	TTATCACATA	TAACTCAAAA	AAAGAAAGAA	720
CAAAAGGAGA	GTCAAACAT	GGCTTCTAAA	GATTTCCACG	TAGTGGCAGA	AACAGGTATT	780
CACGCACGTC	CAGCAACATT	GTTGGTACAA	ACTGCTAGCA	AATTTGCTTC	AGATATCACT	840
CTTGAGTACA	AAGGTAAATC	AGTTAACCTT	AAATCAATTA	TGGGTGTTAT	GAGTCTTGGT	900
GTTGGCCAAG	GTGCTGACGT	AACTATCTCA	GCTGAAGGTG	CAGATGCAGA	TGACGCTATC	960
GCTGCAATCT	CAGAAACAAT	GGAAAAAGAA	GGATTGGCAT	AAGGGAAATG	ACAGAAATGC	1020
TTAAAGGAAT	CGCAGCATCT	GACGGTGTTG	CAGTTGCAAA	AGCATATCTA	CTCGTTCAGC	1080
CGGATTTGTC	ATTTGAGACT	ATTACAGTCG	AAGATACAAA	CGCAGAAGAA	GCTCGCCTTG	1140
ATGCCGCTCT	ACAGGCATCA	CAAGACGAGC	TTTCTGTTAT	TCGCGAGAAA	GCAGTAGGTA	1200
CGCTCGGTGA	AGAAGCAGCT	CAAGTTTTTG	ATGCTCACTT	AATGGTTCTT	GCTGACCCAG	1260
AAATGATCAG	CCAAATCAAG	GAAACTATCC	GTGCGAAGAA	AGTGAATGCA	GAAGCAGGTC	1320
TGAAAGAAGT	TACAGATATG	TTTATCACTA	TCTTTGAAGG	CATGGAAGAC	AACCCATACA	1380
TGCAAGAACG	CGCAGcGGAT	WTCCGCGACG	TGACAAAACG	TGTATTGGCA	AACCTTCTTG	1440
GTAAAAAATT	GCCAAACCCA	GCTTCTATCA	ATGAAGAAGT	GATTGTGATT	GCGCATGACT	1500
TGACTCCTTC	AGATACAGCT	CAATTGGACA	AAAACCTTTGT	AAAAGCTTTT	GTAACCAACA	1560
TTGGTGGACG	TACAAGCCAC	TCAGCTATCA	TGGCACGTAC	ACTTGAAATT	GCTGCTGTAT	1620
TAGGTACAAA	TAACATCACT	GAAATCGTTA	AAGACGGTGA	CATCCTTGCT	GTAAACGGGA	1680
TCACTGGAGA	AGTGATTATC	AACCCAACAG	ATGAACAAGC	GGCAGAATTT	AAAGCAGCTG	1740
GTGAAGCCTA	TGCGAAACAA	AAAGCTGAAT	GGGCACTTTT	GAAAGATGCT	CAAACAGTGA	1800
CTGCTGACGG	TAAACACTTC	GAGTTGGCTG	CTAATATCGG	TACTCCAAAA	GACGTTGAAG	1860
GTGTTAACAA	CAACGGTGCA	GAAGCTGTTG	GACTTTACCG	TACAGAGTTC	TTGTACATGG	1920
ATTCTCAAGA	CTTCCCAACT	GAAGATGAGC	AGTATGAAGC	ATACAAGGCT	GTTCTTGAAG	1980
GAATGAACGG	TAAACCTGTT	GTCGTTTCGT	CAATGGATAT	CGGTGGAGAT	AAGGAACTTC	2040
CTTACTTCGA	TATGCCTCAC	GAAATGAACC	CATTCCCTGG	ATTCCGTGCT	CTTCGTATCT	2100
CTATCTCTGA	GACTGGAGAT	GCTATGTTCC	GCACACAAAT	CCGTGCTCTT	CTTCGTGCGT	2160

729

CTGTTACGG	TCAATTGCGT	ATCATGTTCC	CAATGGTTGC	GCTCTTGAAA	GAATTCCGTG	2220
CAGCGAAAGC	AGTCTTTGAT	GAAGAAAAAG	CAAACCTTCT	TGCTGAAGGT	GTTGCAGTTG	2280
CGGATAACAT	CCAAGTTGGT	ATCATGATCG	AGATTCCTGC	AGCGGCTATG	CTTGCAGACC	2340
AATTTGCTAA	AGAAGTTGAC	TTCTTCTCAA	TTGGTACAAA	CGACTTGATC	CAATATACAA	2400
TGGCAGCAGA	CCGTATGAAC	GAACAAGTTT	CATACCTTTA	CCAACCATAC	AACCCATCAA	2460
TCCTACGCTT	GATTAACAAT	GTGATCAAAG	CAGCTCACGC	TGAAGGTAAA	TGGGCTGGTA	2520
TGTGTGGTGA	GATGGCTGGT	GACCAACAAG	CTGTTCCACT	TCTTGTCCGA	ATGGGCTTGG	2580
ATGAGTTCTC	TATGTCAGCA	ACATCTGTAC	TTCGTACACG	CAGCTTGATG	AAGAACTCG	2640
ACACAGCTAA	GATGGAAGAG	TACGCAAACC	GTGCCCTTAC	AGAATGCTCA	ACAATGGAAG	2700
AAGTTCTTGA	ACTTCAAAAA	GAATACGTTA	ATTTTGATTA	ATCGAAAAGT	CCCTGCAACT	2760
CAGTTACAGG	GATTTTTTTG	ATATTTTAAA	AAGAATTTTC	AAGAAAATCT	TTCTTATAGA	2820
AAGTCCAACC	TTGAAAAAGT	AGTGGTCAGA	ACAAAAAATA	CTTAAATGGT	TCATAAAATT	2880
CTTGACAAGT	TGGATATTTA	GGAGTAAACT	ATTAACCAGT	TAAGTAATAG	AGAGGAGTTT	2940
CTGCAATTTA	GAAATGAATT	GCAACTAGAA	ATATCAAATA	GAAAGAGAGT	TTCGATGAAA	3000
ATTAATAAGA	AATACCTTGT	TGGTTCTGCG	GCACTTTGAT	TTTAAGTGTT	TGTTCTTACG	3060
AGTTGGGACT	GTATCAAGCT	AGAACGGTTA	AGGAAAATAA	TCGTGTTTCC	TATATAGATG	3120
GAAAACAAGC	GACGCAAAAA	ACGGAGAATT	TGACTCCTGA	TGAGGTTAGC	AAGCGTGAAG	3180
GAATCAATGC	TGAGCAAATC	GTCATCAAGA	TAACAGACCA	AGGCTATGTC	ACTTCACATG	3240
GCGACCACTA	TCATTATTAC	AATGGTAAGG	TTCCTTATGA	CGCTATCATC	AGTGAAGAAT	3300
TACTCATGAA	AGATCCAAAC	TATAAGCTAA	AAGATGAGGA	TATTGTTAAT	GAGGTCAAGG	3360
GTGGATATGT	TATCAAGGTA	GATGGAAAAT	ACTATGTTTA	CCTTAAGGAT	GCTGCCCACG	3420
CGGATAACGT	CCGTACAAAA	GAGGAAATCA	ATCGACAAAA	ACAAGAGCAT	AGTCAACATC	3480
GTGAAGGTGG	AACTCCAAGA	AACGATGGTG	CTGTTGCCTT	GGCACGTTTC	CAAGGACGCT	3540
ATACTACAGA	TGATGGTTAT	ATCTTTAATG	CTTCTGATAT	CATAGAGGAT	ACTGGTGATG	3600
CTTATATCGT	TCCTCATGGA	GATCATTACC	ATTACATTCC	TAAGAATGAG	TTATCAGCTA	3660
GCGAGTTGGC	TGCTGCAGAA	GCCTTCCTAT	CTGGTCGAGG	AAATCTGTCA	AATTCAAGAA	3720
CCTATCGCCG	ACAAAATAGC	GATAACACTT	CAAGAACAAA	CTGGGTACCT	TCTGTAAGCA	3780
ATCCAGGAAC	TACAAATACT	AACACAAGCA	ACAACAGCAA	CACTAACAGT	CAAGCAAGTC	3840
AAAGTAATGA	CATTGATAGT	CTCTTGAAAC	AGCTCTACAA	ACTGCCTTTG	AGTCAACGAC	3900

730

ATGTAGAATC	TGATGGCCTT	GTCTTTGATC	CAGCACAAAT	CACAAGTCGA	ACAGCTAGAG	3960
GTGTTGCAGT	GCCACACGGA	GATCATTACC	ACTTCATCCC	TTACTCTCAA	ATGTCTGAAT	4020
TGGAAGAACG	AATCGCTCGT	ATTATTCCCC	TTCGTTATCG	TTCAAACCAT	TGGGTACCAG	4080
ATTCAAGGCC	AGAACAACCA	AGTCCACAAC	CGACTCCGGA	ACCTAGTCCA	GGCCCGCAAC	4140
CTGCACCAAA	TCTTAAAATA	GACTCAAATT	CTTCTTTGGT	TAGTCAGCTG	GTACGAAAAG	4200
TTGGGGAAGG	ATATGTATTC	GAAGAAAAGG	GCATCTCTCG	TTATGTCTTT	GCGAAAGATT	4260
TACCATCTGA	AACTGTTAAA	AATCTTGAAA	GCAAGTTATC	AAAACAAGAG	AGTGTTCAC	4320
ACACTTTAAC	TGCTAAAAAA	GAAAATGTTG	CTCCTCGTGA	CCAAGAATTT	TATGATAAAG	4380
CATATAATCT	GTAACTGAG	GCTCATAAAG	CCTTGTTTGA	AAATAAGGGT	CGTAATTCTG	4440
ATTTCCAAGC	CTTAGACAAA	TTATTAGAAC	GCTTGAATGA	TGAATCGACT	AATAAAGAAA	4500
AATTGGTAGA	TGATTTATTG	GCATTCCTAG	CACCAATTAC	CCATCCAGAG	CGACTTGGCA	4560
AACCAAATTC	TCAAATTGAG	TATACTGAAG	ACGAAGTTTC	TATTGCTCAA	TTAGCTGATA	4620
AGTATACAAC	GTCAGATGGT	TACATTTTTG	ATGAACATGA	TATAATCAGT	GATGAAGGAG	4680
ATGCATATGT	AACGCCTCAT	ATGGGCCATA	GTCACTGGAT	TGGAAAAGAT	AGCCTTTCTG	4740
ATAAGGAAAA	AGTTGCAGCT	CAAGCCTATA	CTAAAGAAAA	AGGTATCCTA	CCTCCATCTC	4800
CAGACGCAGA	TGTTAAAGCA	AATCCAACTG	GAGATAGTGC	AGCAGCTATT	TACAATCGTG	4860
TGAAAGGGGA	AAAACGAATT	CCACTCGTTC	GACTTCCATA	TATGGTTGAG	CATACAGTTG	4920
AGGTAAAAAA	CGGTAATTTG	ATTATTCCTC	ATAAGGATCA	TTACCATAAT	ATTAAATTTG	4980
CTTGGTTTGA	TGATCACACA	TACAAAGCTC	CAAATGGCTA	TACCTTGGAA	GATTTGTTTG	5040
CGACGATTAA	GTACTACGTA	GAACACCCTG	ACGAACGTCC	ACATTCTAAT	GATGGATGGG	5100
GCAATGCCAG	TGAGCATGTG	TTAGGCAAGA	AAGACCACAG	TGAAGATCCA	AATAAGAACT	5160
TCAAAGCGGA	TGAAGAGCCA	GTAAGAGGAA	CACCTGCTGA	GCCAGAAGTC	CCTCAAGTAG	5220
AGACTGAAAA	AGTAGAAGCC	CAACTCAAAG	AAGCAGAAGT	TTTGCTTGCG	AAAGTAACGG	5280
ATTCTAGTCT	GAAAGCCAAT	GCAACAGAAA	CTCTAGCTGG	TTTACGAAAT	AATTTGACTC	5340
TTCAAATTAT	GGATAACAAT	AGTATCATGG	CAGAAGCAGA	AAAATTACTT	GCGTTGTTAA	5400
AAGGAAGTAA	TCCTTCATCT	GTAAGTAAGG	AAAAAATAAA	CTAATGAAAA	ATGAAAGTCT	5460
CGATAAAGAG	GCTTTCATTT	TTATTATGTA	TATATGTAAA	ATTCTTGACA	AGCAATATTA	5520
AAAAGAGTAA	ACTATTAACT	AGTTAATTAA	CCGGTTTATT	ACTTTATAGT	GAATCAAATA	5580
TACTTAAGAA	AAGAGGAAAG	AATGAAAATT	AATAAAAAAT	ATCTAGCAGG	TTCAGTGGCA	5640
GTCCTTGCCC	TAAGTGTTTG	TTCCTATGAA	CTTGGTCGTC	ACCAAGCTGG	TCAGGTTAAG	5700

731

AAAGAGTCTA ATCGAGTTkC TTATATAGAT GGTGATCAGG CTGGTCAAAA GGCAGAAAAC	5760
TTGACACCAG ATGAAGTCAG TAAGAGGGAG GGGATCAACG CCGAACAAAT CGTCATCAAG	5820
ATTACGGATC AAGGTTATGT GACCTCTCAT GGAGACCATT ATCATTTACTA TAATGGCAAG	5880
GTCCCTTATG ATGCCATCAT CAGTGAAGAG CTCCTCATGA AAGATCCGAA TTATCAGTTG	5940
AAGGATTCAG ACATTGTCAA TGAAATCAAG GGTGGTTATG TTATCAAGGT AGATGGAAAA	6000
TACTATGTTT ACCTTAAGGA TGCAGCTCAT GCGGATAATA TTCGGACAAA AGAAGAGATT	6060
AAACGTCAGA AGCAGGAACA CAGTCATAAT CACGGGGGTG GTTCTAACGA TCAAGCAGTA	6120
GTTGCAGCCA GAGCCCAAGG ACGCTATACA ACGGATGATG GTTATATCTT CAATGCATCT	6180
GATATCATTG AGGACACGGG TGATGCTTAT ATCGTTCCTC ACGGCGACCA TTACCATTAC	6240
ATTCCTAAGA ATGAGTTATC AGCTAGCGAG TTAGCTGCTG CAGAAGCCTA TTGGAATGGG	6300
AAGCAGGGAT CTCGTCCTTC TTCAAGTTCT AGTTATAATG CAAATCCAGC TCAACCAAGA	6360
TTGTCAGAGA ACCACAATCT GACTGTCACT CCAACTTATC ATCAAAATCA AGGGGAAAAC	6420
ATTTCAAGCC TTTTACGTGA ATTGTATGCT AAACCCTTAT CAGAACGCCA TGTGGAATCT	6480
GATGGCCTTA TTTTCGACCC AGCGCAAATC ACAAGTCGAA CCGCCAGAGG TGTAGCTGTC	6540
CCTCATGGTA ACCATTACCA CTTTATCCCT TATGAACAAA TGTCTGAATT GGAAAAACGA	6600
ATTGCTCGTA TTATTCCCCT TCGTTATCGT TCAAACCATT GGGTACCAGA TTCAAGACCA	6660
GAACAACCAA GTCCACAATC GACTCCGGAA CCTAGTCCAA GTCCGCAACC TGCACCAAAT	6720
CCTCAACCAG CTCCAAGCAA TCCAATTGAT GAGAAATTGG TCAAAGAAGC TGTTGAAAA	6780
GTAGGCGATG GTTATGTCTT TGAGGAGAAT GGAGTTTCTC GTTATATCCC AGCCAAGGAT	6840
CTTTCAGCAG AAACAGCAGC AGGCATTGAT AGCAAACCTGG CCAAGCAGGA AAGTTTATCT	6900
CATAAGCTAG GAGCTAAGAA AACTGACCTC CCATCTAGTG ATCGAGAATT TTACAATAAG	6960
GCTTATGACT TACTAGCAAG AATTCACCAA GATTTACTTG ATAATAAAGG TCGACAAGTT	7020
GATTTTGAGG CTTTGGATAA CCTGTTGGAA CGACTCAAGG ATGTCyCAAG TGATAAAGTC	7080
AAGTTAGTGG ATGATATTCT TGCCCTTCTTA GCTCCGATTC GTCATCCAGA ACGTTTAGGA	7140
AAACCAAATG CGCAAATTAC CTACACTGAT GATGAGATTC AAGTAGCCAA GTTGGCAGGC	7200
AAGTACACAA CAGAAGACGG TTATATCTTT GATCCTCGTG ATATAACCAG TGATGAGGGG	7260
GATGCCTATG TAACTCCACA TATGACCCAT AGCCACTGGA TTAAAAAAGA TAGTTTGTCT	7320
GAAGCTGAGA GAGCGGCAGC CCAGGCTTAT GCTAAAGAGA AAGGTTTGAC CCCTCCTTCG	7380
ACAGACCATC AGGATTCAGG AAATACTGAG GCAAAAGGAG CAGAAGCTAT CTACAACCGC	7440

732

GTGAAAGCAG CTAAGAAGGT GCCACTTGAT CGTATGCCTT ACAATCTTCA ATATACTGTA	7500
GAAGTCAAAA ACGGTAGTTT AATCATACCT CATTATGACC ATTACCATAA CATCAAATTT	7560
GAGTGGTTTG ACGAAGGCCT TTATGAGGCA CCTAAGGGGT ATACTCTTGA GGATCTTTTG	7620
GCGACTGTCA AGTACTATGT CGAACATCCA AACGAACGTC CGCATTTCAGA TAATGGTTTT	7680
GGTAACGCTA GCGACCATGT TCGTAAAAAT AAGGTAGACC AAGACAGTAA ACCTGATGAA	7740
GATAAGGAAC ATGATGAAGT AAGTGAGCCA ACTCACCTTG AATCTGATGA AAAAGAGAAT	7800
CACGCTGGTT TAAATCCTTC AGCAGATAAT CTTTATAAAC CAAGCACTGA TACGGAAGAG	7860
ACAGAGGAAG AAGCTGAAGA TACCACAGAT GAGGCTGAAA TTCCTCAAGT AGAGAATTCT	7920
GTTATTAACG CTAAGATAGC AGATGCGGAG GCCTTGCTAG AAAAAGTAAC AGATCCTAGT	7980
ATTAGACAAA ATGCTATGGA GACATTGACT GGTCTAAAAA GTAGTCTTCT TCTCGGAACG	8040
AAAGATAATA ACACTATTTT AGCAGAAGTA GATAGTCTCT TGGCTTTGTT AAAAGAAAGT	8100
CAACCGGCTC CTATACAGTA GTAAAATGAA TGGAGCATAT TTTATGGAGA AGTAACCTTT	8160
CGTGTTACTT CTCTTTTTTA GAAAAACGTA ACAGA	8195

(2) INFORMATION FOR SEQ ID NO: 95:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2004 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 95:

TTTACTAAAA GGAAAAAAGA ACTGATTTCT CAGTCCTTCA TTAATCTTAT TCCACACTAA	60
ATAGGTATGG GTAAACAGGT TGTTGACCTT GGTGAATCTC GACTTCAACG TCTTCGAATT	120
CTTCTACGAT TTCTTGAGCG ATTTTCATTGG CAAGTTCTTC GCTTCCGTCT TCACCTACAT	180
AGAAGGTAC GATTTCACTG TCTTCATCCA ACATATGTTT CAAGGTTTCA GTCAATGTTT	240
GGTGCAATC AGGGTTTGAC ACAAGAATTT TTCCATCCAC CATACTAAA TTATCGTTTT	300
CATGGATTC TAAGCCATCG ATCGTTGTAT CACGCACGGC TGTGTGACG CTTCCGCTAA	360
CGACATCGCT AAGAGCAGCT GTCATACGCT CTTGGTTTTT TTCAATGGAC TTGCTTGGAT	420
CAAAGGCAAG AAGACTTGTC ATACCTTGAG GAAGAGTGCG AGCCTCTACC ACTACCGCTG	480
GTTGCTCCAA AACTTCTGCC GCAGATTGAG CTGCCATGAA GATGTTCTTG TTGTTTGGCA	540
AGAAGATGAT GTTACGGGCA TTAACCTGTT CAACAGCCTT GATAAAGTCT TCTGTTGAAG	600
GGTTCATGGT TTGACCGCCT TCGATAACAT AATCCACGCC TTGAGAACAG AAGATATCTG	660

733

CTAGACCTTT	ACCAGCCACC	ACAGCAATCA	AAGCATACTC	TTTTTCTTCA	GCCGACTTGA	720
TAACCTGAGT	AGCTTCTTTC	TCAACCTGTG	CTTCGTGTTG	GTTACGCATA	TTGTCAACTT	780
TTACCTTGAC	CAAGCTACCA	TATTTGAGAC	CTTCTTGCA	AACAAGTCCT	GGATCTTCTG	840
TATGAACATG	GACTTTGACA	ATTTTCATCAT	CGTTAACAAC	AAGGAGAGAA	TCTCCAAGCT	900
CATCCAAGTA	GTTACGGAAT	TCATCGTAGT	CAAAATCTTT	AGCATAGGTT	GGACCTTGCT	960
TAAGAGCTAC	CATGATTTCA	GTACAGTAAC	CAAACGTGAT	GTCCTCAGTC	GCTACGTGAC	1020
CAGCTACAGA	CTTATGATGC	TCTACATTGA	TCATCTCACT	CATGTTGGCA	GGAGTCGCTA	1080
CAAAGTCCTC	AGATGCAATA	TATTCGCCAG	TAAGGGCTGA	AAGGAAACCT	TCGTAGATGA	1140
AGACCAATCC	TTGACCACCT	GAGTCCACAA	CGCCAACCTC	TTTCAATACT	GGAAGCATGT	1200
CTGGTGTTTT	AGCTAGAGCT	GTTTTAGCAC	CTTCCAAGGC	TGCGCGCATG	ACTTCAACAG	1260
CGTCATCTGT	TTGCTCAGCT	TTTTTCTTAG	CACCGATAGC	AGCTCCACGA	GAAACTGTTA	1320
AAATCGTTCC	TTCAACAGGT	TTCATCACTG	CCTTATAGGC	AACTTCCACA	CCTGATTGGA	1380
AGGCCAGAGC	CAAGTCTTGA	CCTGTAACT	CGTCTTTATC	CTTGATAGCT	TGGGAAAATC	1440
CACGGAAAAG	CTGAGACGTA	ATCACTCCTG	AGTTCCACG	CGCACCCATC	AAAAGCCCTT	1500
TGGCAAGAAT	GCTCGCTACT	TCTCCAACCTG	TAGAAGCTGG	CTTGTCTGCA	ACTTCTTTAG	1560
CACCATTTTC	AATGGTCATT	CCCATATTTG	TCCCAGTATC	TCCATCTGGA	ACTGGAAAGA	1620
CGTTTAATGA	ATTGACATAT	TCAGCTTGCT	TATTCAAGCG	AGTTGATGCA	GCCTGCACCA	1680
TTTCTTGAAA	TAAGCTAGTA	GTAATTTTTG	ACACGGTTAT	TCTCCTACAA	CTTTGATATT	1740
TTGAATGTAG	ACATTTACAG	TCTGAGCAGT	AATTCCAAGC	TGGTTTTTCCA	AGCTAAAGGC	1800
AACACGCTCT	TGAATGTTTT	TTGACACTTC	ACTAATCTTT	GTTCCGTAGC	TTAACACGGT	1860
ATATACATCA	ACTGCAATAC	TGCCATCTTC	GGCTGCCTTT	ACGACGACAC	CTTTAGAATA	1920
ATTTTCCTTA	CCTAGCAGGG	CTTGGAATTT	ATCTTTGAGG	GCATTTTAC	TAGCCATACC	1980
GACCACACCA	GAAATCTCAG	TTGC				2004

(2) INFORMATION FOR SEQ ID NO: 96:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11915 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 96:

734

CCGGGTTGGG	CTGTTGCCCC	ATTAAAGCGG	CACCACAGCT	GGGTTTCAGAA	CGTCGTGAGA	60
CAGTTCGGTC	CCTATCCGTC	GCGGGCGTAG	GAAATTTGAG	AGGATCTGCT	CCTAGTACGA	120
GAGGACCAGA	GTGGACTTAC	CGCTGGTGTA	CCAGTTGTCT	TGCCAAAGGC	ATCGCTGGGT	180
AGCTATGTAG	GGAAGGGATA	AACGCTGAAA	GCATCTAAGT	GTGAAACCCA	CCTCAAGATG	240
AGATTTCCCA	TGATTATATA	TCAGTAAGAG	CCCTGAGAGA	TGATCAGGTA	GATAGGTTAG	300
AAGTGGAAGT	GTGGCGACAC	ATGTAGCGGA	CTAATACTAA	TAGCTCGAGG	ACTTATCCAA	360
AGTAACTGAG	AATATGAAAG	CGAACGGTTT	TCTTAAATTG	AATAGATATT	CAATTTTGAG	420
TAGGTATTAC	TCAGAGTTAA	GTGACGATAG	CCTAGGAGAT	ACACCTGTAC	CCATGCCGAA	480
CACAGAAGTT	AAGCCCTAGA	ACGCCGGAAG	TAGTTGGGGG	TTGCCCCCTG	TGAGATAGGG	540
AAGTCGCTTA	GCTCTAGGGA	GTTTAGCTCA	GCTGGGAGAG	CATCTGCCTT	ACAAGCAGAG	600
GGTCAGCGGT	TCGATCCCGT	TAACCTCCAT	TTTAGCGGGT	GTAGTTTAGT	GGTAAAACTA	660
CAGCCTTCCA	AGCTGTTGTC	GCGAGTTCGA	TTCTCGTCAC	CCGCTTTGAA	CTTTGTTCTT	720
TGTACCAAGT	TTTTGACTTG	GGCGCGTAGC	TCAGGTGGTT	AGAGCGCACG	CCTGATAAGC	780
GTGAGGTCGG	TGGTTCGAGT	CCACTCGTGC	CCATAGTGTT	TAGTCCATTA	CTAGGGGATT	840
GGAATATTAT	CTGTTCACTA	AGAGGACACG	GGCTTGTTCC	CGTATAAACT	ATTTTGGAGG	900
ATTACCCAAG	TCCGGCTGAA	GGGAACGGTC	TTGAAAACCG	TCAGGCGTGT	AAAAGCGTGC	960
GTGGGTTCGA	ATCCCACATC	CTCCTTTTAT	ATTAACGCGG	GATGGAGCAG	CTCGGTAGCT	1020
CGTCGGGCTC	ATAACCCGAA	GGTCGTAGGT	TCAAATCCTG	CTCCCGCAAT	AAGGCTCGGT	1080
AGCTCAGTTG	GTAGAGCAAT	GGATTGAAGC	TCCATGTGTC	GGCGGTTCGA	TTCCGTCTCG	1140
CGCCATTTAT	ATATTTTGGA	AGGGTAGCGA	AGAGGCTAAA	CGCGGCGGAC	TGTAAATCCG	1200
CTCCTTCGGG	TTCGGGGGTT	CGAATCCCTC	CCCTTCCATT	TTACGGGCAT	AGTTTAAAGG	1260
TAGAACTAAG	GTCTCCAAAA	CCTTCAGTGT	GGGTTC AATT	CCTACTGCCC	GTGTTAATAG	1320
AATTATGGCG	GGTGTGGTGA	AGTGGTTAAC	ACACCAGATT	GTGGCTCTGG	CATGCGTGGG	1380
TTCGATCCCC	ATCACTCGCC	TATTTTATAT	TGGGGTATAG	CCAAGCGGTA	AGGCAAGGGA	1440
CTTTGACTCC	CTCATGCGTT	GGTTCGAATC	CAGCTACCCC	AGTTACTATT	TGCCGGCGTG	1500
GCGGAATTGG	CAGACGCGCT	GGACTCAAAA	TCCAGTGTCC	GCAAGGACGT	GCCGGTTCGA	1560
CCCCGGCCGC	CGGTATAGTA	TAGTGTTAGG	AACGTTGTTA	TTCTTCGTTC	CTTTTTTATA	1620
TTATTTTGG	TATAATTATA	GTTATTCAAA	TTTTATTTAG	ATTAAGAAAG	TGTAGGGGAG	1680
TATGTCTTGT	TCTATCGATT	TATTAAAACA	TCGGTATTTG	AAAAATATTA	AAGAAAATCC	1740
TGAATTGTTT	GTCGGAATTG	AGTTGGAGTA	TCCTGTTGCA	AGTTTAGAAG	GGGATGCTAC	1800

735

AGATGTTGAA GTTATGAAGG ATCTATTTCA TTATTTAGTT TCTACTTTGG ATCTCACCGT	1860
AGCAAAGGTA GATGATTTTG GCAATCTGAT CCAGTTAGTA GATCCGATAA GTCAGGATGC	1920
TATTTTATTT GAAGTTTCCT ATACAACGAT TGAGTTTGCA TTTGGTAAGG CTGAAACGAT	1980
TCAAGAGGTC GAAAATCGTT TCAATAATTA TATGAATGTA ATTCAGAGAA AGTTAGCTGA	2040
ATCAAATCAT GCTATTGTTG GCTGTGGTAT CCATCCCAAC TGGGATAAAA ATGAGAATTG	2100
TCCAGTGGCT TATCCACGCT ATCAGATGTT GATGGATTAT TTGAATTTGA GTAGAAATAT	2160
TATTAAATCA GATTTACATC ATTTCCCTGA ATATGGTACT TTTATCTGTG GGAGCCAGGT	2220
TCAGCTGGAT ATTTCAAAAA CCAACTACTT ACGGGTGATT AATGCTTTTA CTCAAATTGA	2280
AGCGGCTAAG GCTTATTTAT TTGCAAACCTC TGAATTTTCG GGTGCGGATT GGGATACGAA	2340
AATTTCAAGG GATATTTTCT GGAAGAATC TATGCATGGT ATCTATCCAG AGAATGTTGG	2400
GGTCAATGCT AGACTCCTTA ATGATGAAAC TGATTTTTTTT GACTATCTAA ATCATTTCTGC	2460
GATTTTACT GCGGAACGTG ATGGGCAGAC CTATTATTTT TATCCTATTC AGGCTGGGGA	2520
CTATTTGGCT ACGTCCGAAA TCCAAGCATT TGCTCTGAAT GGGGATGAGG TTATTATTTA	2580
CCCCCAAGAG AAGGATTTTG AAACATCATC TAGTTACCAG TACCAAGATT TAACGACTCG	2640
AGGAACAGTT GAGTTTCGTA GTGTGTGTAC ACAGCCACTT GATAGGACTT TTGCTTCTGC	2700
AGCTTTTCAC TTGGGATTAT TGGTTAATTT AGACAAGTTA GAAGCTTACT TAGAAACAGC	2760
ACCTTTCTTT AAAGTATTTG GTTATGATTA CAAGTCTTTA AGGAGACAAT TTTCTAAGAA	2820
AAATCTTACA GATGAGGAAG AAACATCATC TATTGAATTT TCCAAAGACT TACTCCTACT	2880
AGCTGAGGAG GGACTAGTGG TGAGAAATAA GGAAGAAATG ACCTATTTAC AGCCTTTGAG	2940
AGAAGAATTG AGCCTATAAT TTCTCTTATA AAGGGAGAAT TTTCTGAAAA ATCATGATAT	3000
AATGGACGAG ACTATAGATA AAGGATAGAG AGTAATGACA TTAGTTTATC AATCAACGCG	3060
TGATGCCAAC AATACAGTAA CTGCCAGCCA AGCAATTTTG CAAGGTTTGG CGACGGACGG	3120
CGGTTTGTTT ACACCGGATA CTTATCCAAA GGTAGATTTG AACTTTGACA AATTGAAAGA	3180
TGCTTCTTAC CAGGAAGTTG CTAAGCTAGT TTTGTCAGCA TTTTGTAGATG ACTTTACAGT	3240
TGAGGAGTTG GACTACTGTA TCAACAATGC CTACGATAGC AAATTTGATA CTCCAGCTAT	3300
TGCACCATTA GTGAAATTAG ATGGGCAATA CAATTTGGAA CTTTTCATG GTTCAACGAT	3360
TGCCTTTAAG GATATGGCCT TGTCTATTTT GCCATACTTT ATGACGACTG CTGCTAAGAA	3420
ACATGGTTTG GAGAACAAGA TTGTTATCTT GACAGCGACA TCTGGTGACA CGGGGAAAGC	3480
TGCTATGGCG GGGTTTGCGA ATGTGCCTGG TACTGAGATT ATCGTCTTTT ATCCAAAGGA	3540

736

TGGTGTGAGC	AAGATTCAAG	AGTTACAAAT	GACCACTCAG	ACTGGCGACA	ATACTCATGT	3600
TATTGCTATT	GATGGTAACT	TTGACGATGC	GCAAACAAAT	GTGAAGCACA	TGTTTAACGA	3660
CGTGGCTCTT	CGTGAAAAAT	TGACTACCAA	CAAGTTGCAA	TTTTCATCAG	CTAACTCTAT	3720
GAACATTGGT	CGTCTGGTGC	CACAAATTGT	TTATTATGTT	TATGCTTACG	CTCAATTGGT	3780
TAAGACTGGT	GAAATTGTAG	CTGGTGAAAA	GGTTAACTTC	ACAGTACCAA	CAGGAACTT	3840
TGGAAATATC	TTGGCTGCCT	TTTATGCCAA	ACAAATTGGT	TTGCCAGTTG	GTAAATTAAT	3900
CTGTGCTTCA	AATGACAACA	ATGTTTTGAC	AGACTTCTTT	AAAACACGTG	TCTATGACAA	3960
AAAACGTGAG	TTTAAGGTAA	CAACCAGCCC	ATCTATGGAT	ATCTTGGTAT	CTTCAAACCTT	4020
GGAGCGCTTG	ATTTTCCATC	TTTTGGGAAA	TAATGCTGAA	AAGACAACCTG	AACTTATGAA	4080
TGCCTTGAAC	ACGCAAGGAC	AATATAAGTT	GACAGACTTT	GATGCAGAGA	TTTTGGACCT	4140
CTTTGCAGCT	GAATATGCGA	CTGAGGAAGA	AACGGCAGCA	GAGATCAAGC	GTGTTTGTGA	4200
GTTAGATTCT	TATATCGAGG	ACCCTCATAC	AGCTGTTGCT	TCAGCAGTTT	ATAAAAAATA	4260
CCAATCGGCC	ACTGGAGATG	TAACCTAAGAC	AGTGATTGCT	TCAACAGCTA	GTCCATACAA	4320
GTTCCAGTA	GTTGCAGTAG	AAGCTGTAAC	TGGAAAAGCA	GGTTTAACAG	ACTTTGAAGC	4380
CTTGGCTCAA	TTACATGAAA	TCTCAGGCGT	TGCAGTGCCA	CCAGCAGTTG	ATGGGCTTGA	4440
AATAGCTCCA	ATTCGTCACA	AGACAACAGT	GGCAGCTGCT	GACATGCAAG	CAGCGGTTGA	4500
GGCTTATTTA	GGACTTTAAG	ACAGAGGGAG	CAAACCTCGGT	TGGGAAACCA	ACTGAGTTTC	4560
TTTTTCATCAG	GAGGAGAGAT	TGTTTAAGAA	AAATAAAGAC	ATTCTTAATA	TTGCATTGCC	4620
AGCTATGGGT	GAAAACTTTT	TGCAGATGCT	AATGGGAATG	GTGGACAGTT	ATTGTTTGC	4680
TCATTTAGGA	TTGATAGCTA	TTTCAGGGGT	TTCAGTAGCT	GGTAATATTA	TCACCATTTA	4740
TCAGGCGATT	TTCATCGCTC	TGGGAGCTGC	TATTTCCAGT	GTTATTTCAA	AAAGCATAGG	4800
GCAGAAAGAC	CAGTCGAAGT	TGGCCTATCA	TGTGACTGAG	GCGTTGAAGA	TTACCTTACT	4860
ATTAAGTTTC	CTTTTAGGAT	TTTTGTCCAT	CTTCGCTGGG	AAAGAGATGA	TAGGACTTTT	4920
GGGGACGGAG	AGGGATGTAG	CTGAGAGTGG	TGGACTGTAT	CTATCTTTGG	TAGGCGGATC	4980
GATTGTTCTC	TTAGGTTTAA	TGACTAGTCT	AGGAGCCTTG	ATTCGTGCAA	CGCATAATCC	5040
ACGTCTGCCT	CTCTATGTTA	GTTTTTTATC	CAATGCCTTG	AATATTCTTT	TTTCAAGTCT	5100
AGCTATTTTT	GTTCTGGATA	TGGGGATAGC	TGGTGTGCT	TGGGGGACAA	TTGTGTCTCG	5160
TTTGGTTGGT	CTTGTGATTT	TGTGGTCACA	ATTAAAACTG	CCTTATGGGA	AGCCAACTTT	5220
TGGTTTAGAT	AAGGAACTGT	TGACCTTGGC	TTTACCAGCA	GCTGGAGAGC	GACTTATGAT	5280
GAGGGCTGGA	GATGTAGTGA	TCATTGCCTT	GGTCGTTTCT	TTTGGGACGG	AGGCAGTTGC	5340

737

TGGGAATGCA ATCGGAGAAG TCTTGACCCA GTTTAACTAT ATGCCTGCCT TTGGCGTCGC	5400
TACGGCAACG GTCATGCTGT TGGCCCGAGC AGTTGGAGAG GATGATTGGA AAAGAGTTGC	5460
TAGTTTGAGT AAACAAACCT TTTGGCTTTC TCTGTTCCCTC ATGTTGCCCC TGTCCTTTAG	5520
TATATATGTC TTGGGTGTAC CATTAACTCA TCTCTATACG ACTGATTCTC TAGCGGTGGA	5580
GGCTAGTGTT CTAGTGACAC TGTTTTCACT ACTTGGGACC CCTATGACGA CAGGAACAGT	5640
CATCTATACG GCAGTCTGGC AGGGATTAGG AAATGCACGC CTCCCTTTTTT ATGCGACAAG	5700
TATAGGAATG TGGTGTATCC GCATTGGGAC AGGATATCTG ATGGGGATTG TGCTTGGTTG	5760
GGGCTTGCCT GGTATTTGGG CAGGGTCTCT CTTGGATAAT GGTTTTCGCT GGTATTTCT	5820
ACGCTATCGT TACCAGCGCT ATATGAGCTT GAAAGGATAG GAAATGCAAA AAACAGCTTT	5880
TATTTGGGAT TTAGACGGGA CTTTATTGGA CTCTTACGAA GCGATTTTAT CAGGGATTGA	5940
GGAGACTTTT GCTCAGTTTT CTATTCCTTA TGATAAGGAG AAGGTGAGAG AGTTTATCTT	6000
CAAGTATTCG GTGCAAGATT TGCTTGTGCG GGTGGCAGAA GATAGAAATC TGGATGTTGA	6060
GGTGCTAAAT CAGGTGCGTG CCCAGAGTCT GGCTGAGAAG AATGCTCAGG TAGTTTTGAT	6120
GCCAGGTGCG CGTGAGGTGC TAGCTTGGGC AGACGAATCA GGAATTCAGC AGTTTATATA	6180
TACTCATAAG GGAACAACG CTTTTACCAT TCTCAAGGAC TTGGGGGTGG AATCCTATTT	6240
TACAGAGATT TTAACCAGTC AGAGTGGCTT TGTGCGGAAG CCAAGTCCAG AAGCGGCTAC	6300
CTATCTGCTA GATAAGTATC AGTTGAATTC TGATAATACT TATTATATAG GGGATCGGAC	6360
TCTGGATGTG GAATTTGCCC AGAATAGTGG GATTCAAAGC ATCAACTTTT TAGAGTCTAC	6420
TTATGAAGGG AATCACAGGA TTCAAGCGTT AGCAGATATT TCCCGTATTT TTGAGACTAA	6480
GTGATAAAAA GATTGTGTCA GTTTTGTGAC AGAGACCTAA CAACTATTT CAAGTAACCT	6540
AGTTTGTTAC AAGGAATAGA CAGTTCTGTT AAATAGGCCC GAGAGGGCTT TTTTCTACA	6600
TTTTTTGTGT TATGATAGAC AGGTACTCAT TTGAAAGGAA TTTGAAAGAA TGAAGAAAAG	6660
AATGTTATTA GCGTCAACAG TAGCCTTGTC ATTTGCCCCA GTATTGGCAA CTCAAGCAGA	6720
AGAAGTTCTT TGGACTGCAC GTAGTGTTGA GCAAATCCAA AACGATTTGA CTAAAACGGA	6780
CAACAAAACA AGTTATACCG TACAGTATGG TGATACTTTG AGCACCATTG CAGAAGCCTT	6840
GGGTGTAGAT GTCACAGTGC TTGCGAATCT GAACAAAATC ACTAATATGG ACTTGATTTT	6900
CCCAGAACT GTTTTGACAA CGACTGTCAA TGAAGCAGAA GAAGTAACAG AAGTTGAAAT	6960
CCAAACACCT CAAGCAGACT CTAGTGAAGA AGTGACAAC GCGACAGCAG ATTTGACCAC	7020
TAATCAAGTG ACCGTTGATG ATCAAACGTG TCAGGTTGCA GACCTTTCTC AACCAATTGC	7080

738

AGAAGTTACA	AAGACAGTGA	TTGCTTCTGA	AGAAGTGGCA	CCATCTACGG	GCACTTCTGT	7140
CCCAGAGGAG	CAAACGACCG	AAACAACCTCG	CCCAGTTGAA	GAAGCAACTC	CTCAGGAAAC	7200
GACTCCAGCT	GAGAAGCAGG	AAACACAAGC	AAGCCCTCAA	GCTGCATCAG	CAGTGGAAGT	7260
AACTACAACA	AGTTCAGAAG	CAAAAGAAGT	AGCATCATCA	AATGGAGCTA	CAGCAGCAGT	7320
TTCTACTTAT	CAACCAGAAG	AGACGAAAAT	AATTTCAACA	ACTTACGAGG	CTCCAGCTGC	7380
GCCCGATTAT	GCTGGACTTG	CAGTAGCAAA	ATCTGAAAAT	GCAGGTCTTC	AACCACAAAC	7440
AGCTGCCTTT	AAAGAAGAAA	TTGCTAACTT	GTTTGGCATT	ACATCCTTTA	GTGGTTATCG	7500
TCCAGGAGAC	AGTGGAGATC	ACGGAAAAGG	TTTGGCTATC	GACTTTATGG	TACCAGAACG	7560
TTCAGAATTA	GGGGATAAGA	TTGCGGAATA	TGCTATTCAA	AATATGGCCA	GCCGTGGCAT	7620
TAGTTACATC	ATCTGGAAAC	AACGTTTCTA	TGCTCCATTC	GATAGCAAAT	ATGGGCCAGC	7680
TAACACTTGG	AACCCAATGC	CAGACCGTGG	TAGTGTGACA	GAAAATCACT	ATGATCACGT	7740
TCACGTTTCA	ATGAATGGAT	AAACCCGACT	TGATAACATC	ATTTTGACGA	ATGAGATCTA	7800
GCTTTCGTGA	TGGAAAGCGA	TTCTCGTTCT	TTTTTCTTTT	GTCATACTCT	TCGAAAATCT	7860
CTTCAAACCA	CGTCAGTTTT	ATCTGAAACT	TCAAAGCTGT	GCTTTGAGCA	ACCTGCGACT	7920
AGCTTCCTAG	TTTGCTTTTT	GATTTTCATT	GAGTATCAAT	TTGAATGGAA	AATGGAAAGT	7980
TATCATCTTG	TAATGAGTTA	AGCAACATTC	TTGCAATCTA	TTTTACTTTA	TATCACAATT	8040
AATTAGTCAA	ATATTGATAA	ATCAATAAAA	AGAGAGGGGA	AGAAATGCTA	GAGATTCAAG	8100
ATTTACTGTA	TCAACTCCGC	TTGTCTGAGC	AAGCGAGTAC	GCAATTGTTT	GAAAAAAGGC	8160
TTGGGATTAG	TTTGACACGG	TATCAGATTT	TACTGTTTTT	GCTGGAGCAT	TCTCCTTGTA	8220
ACCAAATGGC	GGTTCAGGAG	CGTTTGAAAA	TTGATCAGGC	TGCTTTGACA	CGGCATTTCA	8280
AAATTTTGGA	AACGGAAGGT	TTGGTGGAGC	GTCATCGTAA	TCCTGAAAAT	CAGCGGGAAG	8340
TGTTGGTAGA	GGCTGCGAAG	TATGCCAAGG	AGCAGTTAGT	GGTGAATCCC	CCTCTGCAAC	8400
ATATCAGGGT	TAAGGAAGAG	ATAGAAAGTA	TCTTAACAGA	GTTTGAGAGA	ACAGAACTCA	8460
GCCGTTTATT	AAATAAATTG	GTTTTGGGTA	TTGAAAATAT	AGAAATTTAA	GGAGAAATAG	8520
ATGTCAATTA	TTTTAACAAC	GATCGTTGCT	TTGGAGCATT	TTTACATTTT	TTATTTGGAA	8580
AGTATTGCCA	CGCAATCAGA	TGCGACTAGT	CGTGTATTTA	ATATGGAAAA	GGAAGAATTG	8640
GCTCATCCGT	CAGTAAGTTC	ATTGTTCAAA	AATCAAGGAA	TTTATAAGGC	TCTGCTAGGA	8700
GTCTTTCTCT	TGTATGTCAT	TTATTTCTCA	CAGAATTTAG	AAATTGTGAC	TATTTTGTGC	8760
TTATTTGTGA	TTGGTGCTGC	GACTTACGGC	TCTTTAACAG	CGGATAAAAA	AATTATTTTG	8820
AAACAAGGTG	GATCAGCTAT	TTTGGCCTTG	ATTAGTATTT	TACTCTTTAA	ATACACTTGA	8880

739

AGGTCGATTC	TAATCTCGCT	AATCCTTTTT	AATCCAGAAT	AAGGGAAATA	TGTTATACTT	8940
GTTTTTAAGA	AAAAAGTCTC	ATTGAATTGG	TTTGTAGGAG	TTAGAAATGA	AAGTATTAGT	9000
GACAGGTTTT	GAGCCCTTTG	GAGGGGAAAA	GGGCAATCCA	GCTTTGGAGG	CCATTAAAGG	9060
TTTACCAGCT	GAAATCCATG	GTGCTGAGGT	CCGTTGGCTA	GAGGTGCCGA	CAGTTTTTCA	9120
CAAATCTGCT	CAAGTATTGG	AAGAAGAGAT	GAATCGTTAT	CAACCTGACT	TTGTCCTTTG	9180
TATTGGGCAA	GCTGGTGGAA	GAAGTAGTTT	GACACCTGAA	CGAGTGACCA	TTAATCAAGA	9240
CGATGCATGC	ATTTCTGATA	ACGAAGATAA	TCAACCGATT	GACCGTCCCA	TCGCCCAGA	9300
TGGTGCTTCG	GCCTACTTTA	GTAGTTTGCC	GATTAAAGCG	ATGGTTCAAG	CTATAAAAAA	9360
AGAGGGCTTA	CCGGCCTCTG	TTTCCAATAC	GGCAGGGACT	TTTGTCTGCA	GCCATTTGAT	9420
GTATCAGGCT	CTCTATTTGG	TAGAAAAGAA	ATCTCCATAT	GTTAAGGCAG	GTTTTATGCA	9480
TATTCCTTAT	ATGATGGAAC	AGGTGGTGAA	CAGACCGACT	ACTCCAGCTA	TGAGTTTAGT	9540
GGATATTCGG	CGAGGGATAG	AAGCAGCAAT	CGGCGCTATA	ATAGAACATG	GAGATCAGGA	9600
ACTCAAGTTG	GTAGGCGGAG	AAACTCATTG	ATAGAAAAAA	GCTTGAGGGG	AAAAACCTTC	9660
AAGCTTTTGG	ACGTTTTTCG	GCCAATACTG	CTCGGTAAAA	CATAATTTTA	GTGCATTGGA	9720
TATAAGGTAG	GAGTGAAAAA	CTAGCAATGC	CAAAGGTAAT	CCAATTGAGG	AAGTACCAAG	9780
GAAGAAGCTG	TAAATCTAGG	ACAAAGTGCT	GGAAGTTGTA	GCCCTTCATA	AAGGAACGGC	9840
TAGTTTTTAG	GATTCGTCTT	GGTGGGACCT	GTCCTAGGTC	TAGACTATAA	CAGAGAAGAA	9900
ATTCCACCTG	TGAATAGGCA	TAATACTGTG	GAATATAGAG	GATATTTTCT	ACAATGATCA	9960
AGATGAGACT	TGCAAGAAAG	TAGAGTCCAA	AGACCATGAG	GAAACGCTCG	GTTTCAACTG	10020
ATGAGAGATC	TAGATTTGGA	AACTCAGGAT	GTAGGGTGAC	GAATTTTTTT	GCTAAAAAGC	10080
TACTATAAAA	GAGGAGGTAA	ATCCCAAGTA	AATTAGGGAT	ACTCCATAAA	AAGAGATAGA	10140
AACGTTTGAG	AAGTAGGGTC	AAAAAGGTTT	GAGAAAAGCG	CTCCTCATCA	AAGAGAGCTA	10200
GGCTGTTTTT	TACAGATGGC	TCCGTTTTAG	AATCTTTCAT	GAGTGTCAGT	GTTGCATAGA	10260
CGGAACTGGT	CAAAAGAATA	GTCCCGATAA	AGGAGACTAG	TAGAGGAAAG	AGGTAGGTTT	10320
GAAGTATTTG	GCCAAGTATG	CTGAAAAATG	GCTGTTCTAA	AACAGTCCCG	TGGATCCGAG	10380
ATAAGGGATT	AAGAAAACCA	GATAAGATGA	CCAGCATACT	GGGAAGGATA	TAGAGGAGAA	10440
AGAGACGGGG	GGTGTGAGCC	TGAAAATGTT	TTGACTCCTG	ACGAATTGTT	TTTAAATCAA	10500
TTTTTGATA	GTTTCATTCT	TTATTATACC	ATAGTTCTTA	TACATAGTTC	GTGACAGTTC	10560
CTACTTTTTT	TGATAAAATC	ATACAGTGTG	TCCTTGGGCA	CACTGTATGA	ACTGGGACTG	10620

740

TCTTTCCCAG CTTCGGAGGT AAAAAATGTC AGATTCACCA ATCAAATATC GTTTGATTAA	10680
GAAAGAAAAA CACACAGGAG CTCGTCTGGG AGAAATCATC ACTCCCCACG GTACCTTTCC	10740
GACACCTATG TTTATGCCAG TTGGGACACA AGCCACTGTC AAAACTCAGT CACCTGAAGA	10800
ATTGAAGGAG ATGGGTTCGG GAATTATCCT ATCAAACACC TATCATCTCT GGCTTCGCCC	10860
TGGAGATGAA CTCATTGCAC GCGCTGGTGG TCTCCACAAG TTCATGAATT GGGACCAGCC	10920
TATCTTGACA GATAGTGGTG GTTTTCAGGT TTATTCTTTA GCAGATAGCC GTAATATCAC	10980
AGAAGAAGGA GTAACCTTTA AAAATCATCT AAATGGTTCT AAGATGTTCC TATCCCCAGA	11040
AAAAGCCATC TCTATTCAGA ATAATCTGGG TTCAGACATC ATGATGTCCT TTGATGAATG	11100
TCCTCAGTTT TATCAACCTT ATGACTACGT TAAGAAATCG ATCGAGCGTA CCAGCCGTTG	11160
GGCTGAGCGT GGTTTGAAGG CTCACCGTCG TCCACATGAC CAAGGTTTGT TTGGAATTGT	11220
GCAAGGTGCA GGATTTGAAG ACCTTCGCCG CCAATCAGCT CATGATCTTG TCAGCATGGA	11280
TTTCTCAGGC TACTCTATCG GTGGTTTGGC AGTGGGAGAA ACCCATGAAG AGATGAATGC	11340
GGTCTTGAC TTTACAACCTC AACTGCTGCC TGAAAATAAA CCTCGTTATC TGATGGGTGT	11400
GGGAGCGCCA GATAGCTTGA TCGATGGGGT CATTCGTGGG GTGGATATGT TTGACTGTGT	11460
CTTACCGACT CGAATTGCTC GTAACGGGAC TTGTATGACC AGTCAAGGAC GTTTGGTTGT	11520
GAAAAATGCC CAGTTTGCTG AGGACTTTAC GCCACTGGAT CCTGAGTGTG ATTGCTACAC	11580
ATGTAATAAC TATACACGCG CTTACCTTCG TCACCTGCTC AAGGCTGATG AAACCTTTGG	11640
TATCCGCTTG ACTAGCTACC ACAATCTTTA CTTCTTGCTT AACCTGATGA AGCAAGTGCG	11700
ACAAGCCATC ATGGATGACA ATCTCTTGGA ATTCCGTGAG TATTTTGTGG AAAAATATGG	11760
CTATAATAAG TCAGGACGTA ATTTCTAAAA TGGAATTGAT ATAAAAAAT CCTAAGTTTT	11820
CTCTTAGGAT TTTTCTTCTT TTTTGTAG AATAAAGTGT ACAATGAAAG GAAGAATAAA	11880
CTCGTATGCG CATTAAATGG TTTTCCTCGA TTAGG	11915

(2) INFORMATION FOR SEQ ID NO: 97:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9069 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 97:

GAGAGGGCAA CAGTTCTATC GCTTCAAATT TTTTCTTGGT TTGCAGATAT TCAAGAATCG	60
GGAGTTTTTC TATAGTATTC GGCAGATTTA TTACAGCCAA GCATCTCAAA AATACGGACA	120

741

GCATCCTCCA	TCTTTTCTG	GCCTTCCTTG	ACTCTACCTT	GCTTGCTATC	AAGGAGACCT	180
TCTGCCCACA	GATAACAAT	TCGGAAATAG	GTCTCATTTT	CCTTGTAGAA	ATGCTCTTCG	240
ATAACACGTT	TAAAATAATA	GGCATTGGTA	AATTCTTCAC	ACTCAATACT	AGCTAAAAAG	300
CCATTCAATA	GTATAGTATG	AAAAAGGTTT	CGATTGCCAG	ACATTTCCAT	TAGAAAATCA	360
GATTTACGTA	CCATTTCTCG	TACATATCTA	GTAAAAAGAG	AAACAGATAA	AAATGGAGAA	420
CTGACTGAAA	ATAAATTGAG	TTCATAGATT	CCCCAGATCT	CGGTAGAAAA	CAAATAATCA	480
TGAAGGACTT	TTCCTTCCTC	TGCTGTTAAG	TCTACCCTTT	CATCTATGCT	CTTCATATAA	540
GACTTGATAA	TAATGGCATT	TAGAATATGT	TTCTGTTTGT	TGTGAGAATG	GGCATGCTTT	600
TATACTCCCT	GCGATATAAG	TCCTCAAGAG	GTGCTATATT	CTTTGGTTCC	AAGACATCTG	660
TAATTTCTTT	TCTCAACTCA	GAATCTGTAT	CATACTGGAA	ACCTCTTGCC	AGAAAGAGGA	720
TCTCCTCCAC	ACTGGCAGAT	ATATTTTCCA	GAGCAAATAG	AACTTTTCC	ACCGAAAGCT	780
CACTCTGACC	TGTTTCAAAA	CGGGACAACA	TAGACGGCGA	AAATTGTCCT	CCGGTTGCTT	840
GTCTCAGTGA	GATATTTCTT	GACTCTCGTA	ATTGTCTAAA	GACTTTTCCA	ATCTGCTCCA	900
TAGACTTCCC	CTTGATTCCG	TATTTTCTTC	ATTTTATCAT	ATTTTTCAGA	AAATTCATCA	960
AAAACCTGCC	AAATTGTCAG	AATTATGAGA	AAATAGAGGA	TATTTATCAC	GTGGAGGGAC	1020
TGCTATGAGA	GACGATATCA	AAATCAATGA	CCGTGCTTTG	GCCTTGCAAG	ACCAAATTAT	1080
CGAAAACTA	GAGAAAGTTT	TTGATACAGA	TGTGGAATTG	GATGTTTACA	ATCTAGGTCT	1140
GATTTATGAA	ATCAATCTGG	ATGAAACGGG	GCTCTGCAAG	ATTGTCATGA	CCTTCACCGA	1200
TACTGCCTGT	GATTGCGCCG	AAAGCCTGCC	TATTGAAATC	GTGGCAGGTC	TGAAACAAAT	1260
CGAGGGTATC	AAAGATATCA	AGGTTGAAGT	TACCTGGTCG	CCTGCTTGGA	AAATCACACG	1320
AATCAGTCGC	TATGGCCGTA	TTGCCCTTGG	ACTACCACCT	CGTTAAGCAG	ACCAATCACT	1380
TTTAAAGATG	AAAATCAAAG	GGCAAAC TAG	AAAAC TAGCC	GCAGGTTGCT	CAAAACACTG	1440
TTTTGAAGTT	ATGGATAGAA	CTGACGAAGT	CAGCTCAAAA	CACTGTTTTG	AGGTTGTGGA	1500
TAGAACTGAC	GAAGTCAGCT	CAAAACACTG	TTTTGAGGTT	GTGGATAGAA	CTGACGAAGT	1560
CAGCCCAAAA	CACTGTTTTG	AGGTTGTGGA	TAGAACTGAC	GAAGTCAGTA	ACCATACCTA	1620
CGGCAAGGCG	ACGTTGACGT	GATTTGAAGA	GATTTTCGAG	TATGAGTTTA	TTTTTTACCT	1680
GACTTGTCCTA	TATTCAGAA	GTCTGTCACG	GCTCCGCGTG	AAGCAGATGA	TACGATGTGG	1740
GCATATTTAC	CGAGGACACC	ACGGCTGTAA	AGTGGTGGCA	AGGTTGTTTC	TGCCTTGCGT	1800
TTTTCAAGTT	CTTCTTCGGA	TACGGCCATA	GAAATTTCTT	TGGTATCTTG	GTCAACCGTA	1860

742						
ACGATATCGC	CGGTACGGAG	ATAGGCAATT	GGTCCACCAT	CCTGAGCTTC	AGGAGCGATA	1920
TGTCCAACAA	CCAGACCATA	AGTACCACCA	GAGAAACGTC	CGTCCGTCAA	GAGGGCCACC	1980
TTATCTCCCT	GACCTTTACC	AACAATCATT	GAAGAAAGTG	ATAGCATCTC	AGGCATACCA	2040
GGACCACCTT	TAGGTCCAAC	AAAACGAACA	ACGACTACAT	CGCCATCAAC	GATTTTCATCT	2100
GTCAGAACGG	CCTGAATCGC	ATCTTCTTCT	GAGTCAAAGA	CCTTAGCTGG	CCCAACGTGA	2160
CGACGCACTT	TAACACCTGA	TACCTTGGCA	ACTGCACCGT	CAGGAGCAAG	GTTCCCGTTC	2220
AAGATGATAA	GCGGACCATC	CGCACGTTTT	GGATTTTCAA	GTGGCATGAT	AACTTTTGG	2280
CCTGGAGTCA	AGTCTGCAAA	GTCAGCCAAG	TTTTTCAGCTA	CAGTCTTACC	AGTACATGTG	2340
ATGCGATCTC	CGTGAAGGAA	ACCATTTGCC	AACAAATACT	TCATAACCGC	AGGGACACCA	2400
CCGACTTCGT	AGAGGTCTTG	GAAGACATAC	TGACCAGATG	GTTTCAAGTC	GGCCAAGTGA	2460
GGCACACGTT	CTTGAATCGT	ATTGAAGTCC	TCAAGTGACA	AGTCAACATT	TGCGGCATGG	2520
GCAATGGCGA	GCAAGTGAAG	AGTGGCGTTT	GTAGAACCAC	CGAGAGCCAT	CGTTACAGTG	2580
ATAGCATCTT	CAAAGGCTTC	ACGAGTCAAG	ATATCTGATG	GTTTGAGACC	AAGTTCCAAC	2640
ATCTTAACAA	CAGCACGTCC	TGCTGCTTCG	ATATCTTCTT	TCTTATCAGC	TGATTCAGCT	2700
GGGTGAGAGG	ATGACCCTGG	CAAATCATC	CCTAGAACTT	CGATAGCAGT	TGCCATGGTA	2760
TTAGCAGTAT	ACATACCACC	ACAACCACCA	GGGCCAGGGC	AGGCATTACA	TTCAAGACGT	2820
TTACAGTCCT	CAGCTGTCAT	GTCACCGTGG	TTCCATTTTC	CGATACCTTC	AAAGACAGAA	2880
ACCAAGTCGA	TATCTTTACC	ATCAAGATTT	CCCGGTGCAA	TAGTTCCACC	ATAGGCGAAA	2940
ATAGCTGGGA	TATCCATATT	AGCAATAGCA	ATCATAGATC	CAGGCATGTT	CTTGTCACAG	3000
CCACCGATAG	CGACGAAGGC	ATCCACGTTG	TGACCACTCA	TAGCCGCCTC	GATGGAGTCC	3060
GCGATGATGT	CACGAGATGT	TAGAGAGAAA	CGCATACCAG	GCGTTCCCAT	AGCGATCCCG	3120
TCCGCTACGG	TAATGGTTCC	AAACTGTACA	GGCCAAGCGC	CTGCAGATTT	GACACCTTCT	3180
TTAGCCAGTT	TCCCGAAATC	ATGCAAGTGA	ATGTTACATG	GTGTATTTTC	CGCCCAAGTC	3240
GAAATCACTC	CCACAATCGA	TGTTTCAAAG	TCCTTATCTG	TCATAACCAGT	CGCACGAAGC	3300
ATAGCACGGT	TAGGTGATTT	AACCATGCTG	TCATAAATGC	TACTGCGGTG	ACGTTTATCT	3360
AATTCAGTCA	TCTTATCCCT	CCCATTTTCT	TTTTTACTAT	TATAGCACAA	TTTTTCGCATG	3420
AAGAACAGAA	TAAAATTCTT	GAATTTTCTG	AAAATTCTAT	ACACATGTGA	AATATTTAAA	3480
ATTAAAAACA	ACAAAGCGGA	TTAGTGCACT	TTCTGATGAC	CAGAATATGC	TTTTTAATCC	3540
GCTTTCTTTA	AATAACGTAC	TGTAATTTTT	ACAGAAATTC	TTTCAAATAA	GTGTATTTAA	3600
CATCTATCTT	GCATTATAAA	TTTCTAGAAC	CTTCTCTTTT	ATATTCGATT	CACTCAAACC	3660

743

ATACTCATTA	AGAAGATAAT	CCATTTTCCC	TACTTGACCG	AATCTTTCTT	GAACACCCAT	3720
CCGATGAATT	TTTGTTATTC	CATCATCAGA	GAATAATTCA	CATAAAGCAC	TGCCAATTCC	3780
ACCTATCTGA	TTGTGGTTTT	CTACAGTAAA	TATAGTTTTT	CCACTTAACA	TTGTTTTTAT	3840
CTGTTCTGGT	ATCGGTTTGA	TTCTAAATAA	ATCTATCACA	CCTACTGAAT	AACCTAATTT	3900
AGACAGTTCA	TCTGCAACTC	GAATACTTGG	AGCAACCATT	ATGCCAGAAG	CAACGATTAC	3960
AAGATCTTCA	CCATGCCTTA	ACTCAATGTA	GCCTTTAGAA	AAATCTTCTC	CACCTTGATA	4020
CACAGGAACT	GGAGCTTTTC	TAATTGTTTCG	AATATATTTT	AGTCCTTTTA	AGTCTAATGT	4080
CTGGTTCAAT	ATTTACAGAA	ATTGGATATC	ATCAGTTGCT	TCGAAAATGA	TTGATTTAGG	4140
AATTAAACGT	AACAATCCAA	TTTCTTCAAA	TGGCATATGT	GTTCCACCAT	TCATCTCTGC	4200
CGTTACTCCT	GCATCTGATC	CAATCACAGT	GGCATCCAAT	TGTGCGTATC	CAAGAGAAAT	4260
AAATAATTGA	TCAAATACTC	TTCGTGAAGC	AAAAGGACCA	AATGTATGAA	GATAAGGTCT	4320
AAACCCCTGA	ATAGACAAGC	CTGCTGCAAG	GCCGACCATT	TCTGCTTCCA	TAATCCCAAC	4380
ATTCACATAA	CGGTCTCCAA	AGTCCTTTTC	AAGATTATTA	GTAGCCATCG	AACTTGACAA	4440
ATCGGCTTCT	AAGACTACTA	TATCAGAATC	ACTTTGATTA	GCCTCTAAAA	GGAAGTCTCT	4500
ATATACATGC	CGTAATTCTT	TCGTACTTCT	CATCATTCTG	TTTCCTCCAA	TTCCTGACTT	4560
AATCTTTCTA	CAACTGAAGT	TAACATTTGT	TTCTCCTCTA	CAGTAGGGCG	AAGATGATGA	4620
TTGGATTTCA	TTTCTTCCAG	CTCTTGAACC	CCTTGACCTT	TAATAGTATC	TAATACAATG	4680
CACTTAGGTG	ATGAATTATT	TGACTGTTTT	AATTGGACAA	TCCCTTCATA	AATTTCTCTA	4740
ATATCTGAAC	CCTTGACCCT	AATGGATTCA	AATCCAAATG	CTGAAAATTT	TTCTACGAAA	4800
TCACCTGGAT	TACAAATATC	CTTTGTAAAA	CCATCTAATT	GTTTTTTGTT	ATCATCAACA	4860
AATACAATTA	AGTTGGATAA	CTGTTGATGA	GAAGCAAAC	GTATAGCCTC	CCAACATTGT	4920
CCCTCATTTA	ACTCACCATC	TCCAACAATA	GCGTAAGTAT	AAAAGGGACT	CTTTCTTATT	4980
CTCTGACCAT	ATGCAAGTCC	AGTTGCAACA	CTAATTCCTT	GTCCTAAAGA	GCCCCGTTGTC	5040
ATATCTATGC	CTGGCGTTAG	ATTTCTATCA	GGATGAGACG	GTAATTTGGT	TCCATTTGTA	5100
TTTAAAGAAT	ATAAGAATTC	TTTGTCAAAG	AAACCATTCA	AATAGAGTGT	ACTGTATAGA	5160
GCTGGTCCTC	CGTGACCTTT	TGATAATATG	AAATAATCTC	TATCTCGTGC	TGCAAATATT	5220
TCTGGAGTCA	TTGGCATTAT	TTCAACCATAA	AGCACCGCTA	AACTTCTAC	GATAGACAGA	5280
CTTCCTCCGT	AATGTCCGAA	TCCAAGATGA	TTCAATGTTC	TAAGAGTATT	TAATCGGATG	5340
TTAGTCGCAA	ATTTTCTTAA	CCCATCTTCT	CTATTTTAC	TTAAAATCAT	CCCTTATTCC	5400

744

TCCGTTGCAG	ATGGCTTTTT	AATAAAGGAT	ACTCCAAACA	TAAGTCTAG	AATAAGAACA	5460
AGACCAATCA	CAATGCCTGC	TTGTGAGCCA	AATTGATTTA	ACATTCCTAA	AATAATTCCT	5520
GATAGACCAA	AATCTGCATC	TGAGAAAGTT	GATCCTTGGA	AACCAAGTCC	TCCCAAAACT	5580
GGCATTAATA	AGACTGGAAG	AAAAGTGATT	AAAATACCTT	GTAAAAATGC	TCCAATAGTG	5640
GCTCCACGAA	CACCACCAGA	TGCATTCCCA	ATGACACCTG	CAGTCGCTCC	ACAGAAGAAA	5700
TGAGGCACAA	CACCTGGTAA	GATAACAACC	GTTCTTGAAG	CAATCATAAT	TACCATACTT	5760
ACTAAACCAC	CAACAAACT	AGAGATAAAT	CCAATTAGAA	CTGCATTGGG	TGCATAAGTA	5820
TAAACAATCG	GACAATCCAA	AGCAGGTTTT	GAATTAGGTA	CAAGACGCTC	TGAAATACCT	5880
TTAAAGGCTG	GAACAATTTT	GCCCCAAATA	AGGCGAACAC	CTGCTAAAAT	AACAAATACC	5940
CCTGCTGCAA	ATTGACCTGC	TAATTGTAAA	GCATAAACTA	GACCACTTGT	ACCACTACTG	6000
ATTTCTTTTT	CTATATATTC	TGACCCTGCA	AAGATAGCTA	CAATAATGTA	AATAACTGCC	6060
ATGGATAAAG	TAATACTAAC	AGTACTATCA	CGTAAAAAAG	CTAAACTCTT	TGGAAATTTA	6120
ATGTCCTCTG	TTGATTTTGA	TTTGTCAACG	ATAAGGCTAC	CAGTAAAACC	ACTCAACCAA	6180
TATCCCAAAG	AACTGAAATG	ACCTAAAGCT	ACCTTGTCAT	TTCCAGTTAA	TTGAACCATA	6240
TATTTTGTGA	CAAATGCTGG	GGAAATACTC	ATAATAATAC	CGAGTGCTAA	TCCTCCTAGT	6300
AAGATGAGAG	GCAAGCTAGT	AAAGCCAGCA	ACTGATAAAA	TGACCGCAAT	CATACATGCC	6360
ATATATAGAG	TGTGGTGCCC	TGTTAAAAAA	ATATATTTAA	ATCGAGTAAA	ACGAGCGATT	6420
AAGATATTGA	ACACCATGCC	TGCAACATA	ATCATTGCAG	TAGCTGAGCC	ATATGTTGTT	6480
AAAGCTACAG	CTACAATTGC	TTCATTATTC	GGCACAACGC	CAGATAAATG	AAAAGCATGC	6540
TCAAACATGG	TACCAAATGG	ATTTAAAGAA	TTTTGTACAA	TTCCTGCACC	ACCAGATACA	6600
ACTAAGAAAC	CAACAAAGGT	CTTAATTCCA	CCTTTAATAA	TATCAGGTAA	TTTCTTCTTC	6660
TGAAGAACTA	ATCCTAAGAT	TGCAATTAAA	GCTACTAAAA	TAGCTGGTGT	ACTAACAATA	6720
TCCAATATGA	ACTTCATCAT	GACGCTAGCC	TCCTATATAA	GTCCTTTTTC	TTACAAAAGT	6780
TTAGTAATTA	ATTCTCGTAG	TTCATCCATA	TCAATAATAC	TATTTAAGAT	ACGAACATCT	6840
CCAAGATGAC	TAGCTGAATC	AGCTAGATCA	CGACCAACAA	TCCAAATATC	AGCTGCATTT	6900
GGATCTGCTC	CACCTAAATC	ATAATGTTCA	ACTTCTACAT	CCGAAACATT	CAAATCACTC	6960
AATACAGATT	CAATATTCAT	CTGTACCATA	AACTTGAAC	CTAATCCTGA	ACCACAAGCT	7020
GTACCAATTT	TTAACATTAT	CTAATCCTCC	TGTTTAATTA	TCATTTTAAT	GTCATCATAG	7080
TTTTTTGATG	ATATTAAAGT	TTGAACATGA	TTTTTATCTC	TTAAAATTGT	TGTTAAATGT	7140
GACAAAGCCT	TTAAATGACT	CTCATTATCA	ATGGCTGCAA	TACAAATCAA	CAATCTTACC	7200

745

TCTTGTTCTG	GATTATCCAA	TAAATAAATC	GGTTCCTCCA	AAACTAACAT	TGACATTCCT	7260
ATTTCAATCA	CACCTTCATC	TGGCCGAGCG	TGAGGAATTG	CTACTCCCTT	CCCTAAATTA	7320
ATAAAAGGTC	CAAACCTCTC	TACTTTTGA	ATCATTGCCT	CAGGGTAGTT	CTCAGTTATC	7380
TTATCTTGAT	CCAAAAGCGG	TTTAGCTGCT	AAACGAATCG	CCTCCTTCCA	TCCTAATTTT	7440
TGCGAACTAA	CCTGATAGGT	TTCTTTGGTA	ATAAGTTGTT	CTAGCACTGG	TACAATTTCC	7500
TTTCTATCAT	TTTTTTGGTA	AAGATAATTC	TTTAACGCCA	ATCTTAATTC	CAATTCTTGT	7560
GTAATAATTC	CATATCTTTT	GACAAATATC	AGGATTTGTT	CAATCTCAA	ATCTCCATAC	7620
TCTAAATTCG	GAAAATCTTT	TAACACTAGT	TCTACTAGTT	GTATTGCTTG	CTCTTCAGTC	7680
ATCATAACCG	AAACTAGATA	ATTTGGCTTT	TCTGTCTCCA	CCTTTATGGT	AGAAAAAACC	7740
ATATCATAGT	CACTACTAGC	TTTCACCTGT	AAATCATCAA	TCTTTGAGGT	TCCTATAAAC	7800
TCAATTTGAG	GAAATAATGC	TAATAGATTC	TCTTTTAACA	TCAATGAAGA	ACTAACACCA	7860
TTAGGACAAA	TGATTGCTGC	TTTATACCAT	TTTTGAGGCA	AAGTATCTGC	TTTCTTTAAA	7920
TAACCTCCGA	AATGGATAAC	AAAATATGCT	GTTTCACTAT	CAGGTATGGG	ATTGTCAATA	7980
GCGTCCATCA	AGGGCATCAA	AGAATCTTTG	ACTAATTCAA	ATAAATCAGG	ATAATGTTCT	8040
TTAACATGCA	ATACATATTC	ATTTGAACTA	GGTAGGCCGA	ACTTTAATCT	ATAGTAAGCC	8100
GGTATAAGGT	GGCGGCGAAG	ATTTTCTCTC	AATCCTTCCC	TTTGTTTAAA	ATGTAACAAA	8160
GAAATATCTT	CCATTCTACT	TATAATAGCC	TCTGTTAATT	GATTAAAGTA	AACCGGAGCA	8220
ACATCTACTT	CACCTTCAA	GCAACTTGAT	AATAAAACGG	TGATATAGCG	ATAATCATCC	8280
TCAGAAAACA	CCGTATCTAT	AATTCCCAAA	TCAACCACTG	TATCCAATAA	AATAGTGGTT	8340
ATATCTTGAA	TAACAGGAGA	TACTAATGTC	TCTGAAAGAC	ATACTCTTTC	AACATCCCTT	8400
TGATACCTAC	ACAGAATGAA	TACTAAACCG	AAAAGGTAAA	CTTTTAATTG	ATTAACAATA	8460
GGTACTAGCT	GTAGCTTCTC	ATAATAATCT	TTAACTACCT	GATCAATCAA	ATCATAAGTT	8520
AATGAATACC	CCCAACTGGA	TAAAACATAA	TCCAAACCCC	AAATCCCTAT	GGAGGATTCC	8580
AGCAACTCAC	TAACCATTTG	AAAAGCTAAG	CGGTGCTTAT	TCCACTCTGA	ACCGTGTA	8640
GTATAACCTT	TTGCTCTACT	GTACCCTAGC	TCCAAATCAT	TATCTAACAT	AATCTTTCTT	8700
AATGATTGAA	TATCAGATAA	GGTTGTATTC	TTACTTACTT	TCAAAAAGTC	TTGGTAATGA	8760
CTATTCGATA	TAAAATCTAA	TCGGCAAAAA	GTGTAAAGAT	AGATTAAAGC	TAAGCGAGTC	8820
GACTTTGGTA	AAACCAATTC	ATCCGACTTA	ATAATATCTG	TCAAAGACTG	CTTCGTACGA	8880
TTTGATAAAC	TATAGCGACC	TTGCTTTTTA	TCCAGCACTA	TCCCTTTATT	AGCTAGATAA	8940

746

GGCACTAAAT AATCTATTCC TTCTTTGACT TCCTTTATAG GTAAGCTCAC CTTAACAGAT	9000
AATTCATATA ACGATAGCTC ACAATGATCC ATCAAAGTCA TCAAAATAAC TAGTGCTCTA	9060
TAATCAAAC	9069

(2) INFORMATION FOR SEQ ID NO: 98:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8654 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 98:

CGAGACAACA AGATGAAGAA AAATTTGCCC TATCGTTTGT GGCGCTTGCA AGTGTAGCAC	60
TTCTTGCAGC CTGTGGAGAA GTGAAGTCTG GAGCAGTCAA CACTGCTGGT AACTCAGTAG	120
AGGAAAAGAC AATTAAAATC GGGTTTAACT TTGAAGAATC AGGTTCTTTA GCTGCATACG	180
GAACAGCTGA AAAAAAGGT GCCCAATTGG CTGTTGATGA AATCAATGCC GCAGTGGTAT	240
CGATGGAAAA CAAATCGAAG TAGTCGATAA AGATAATAAG TCTGAAACAG CTGAGGCTGC	300
TTCAAGTTACA ACTAACCTTG TAACCCAATC TAAAGTATCA GCAGTCGTAG GACCTGCGAC	360
ATCTGGTGCG ACTGCAGCTG CGGTAGCGAA CGCTACAAAA GCAGGTGTTT CATTGATCTC	420
ACCAAGTGCG ACTCAAGATG GATTGACTAA AGGTCAAGAT TACCTCTTTA TTGGAACTTT	480
CCAAGATAGC TTCCAAGGAA AAATTATCTC AAATATGTT TCTGAAAAAT TAAATGCTAA	540
GAAAGTTGTT CTTTACACTG ACAATGCCAG TGACTATGCT AAAGGGATTG CAAAATCTTT	600
CCGCGAGTCA TACAAGGGTG AAATCGTTGC AGATGAAACT TTCGTAGCAG GTGACACAGA	660
CTTCCAAGCA GCCCTTACAA AAATGAAAGG GAAAGACTTT GATGCTATCG TTGTTCTTGG	720
TTACTATAAT GAGGCTGGTA AAATTGTAAA CCAAGCGCGT GGCATGGGAA TTGACAAACC	780
AATCGTTGGT GGTGATGGAT TCAACGGTGA GGAGTTTGTA CAACAAGCAA CTGCTGAAAA	840
AGCATCAAAC ATCTACTTTA TCTCAGGCTT CTCAACTACT GTAGAAGTTT CAGCTAAAGC	900
TAAAGCCTTC CTTGACGCTT ACCGTGCTAA GTACAATGAA GAGCCTTCAA CATTTGCAGC	960
CTTGGCTTAT GATTCAAGTT ACCTTGTTAGC AAACGCAGCA AAAGGTGCTA AAAATTCAGG	1020
TGAAATCAAG AATAACCTTG CTAAAACAAA AGATTTTGAA GGTGTAAGTGT GTCAAACAAG	1080
CTTCGATGCA GACCACAACA CAGTCAAAAC TGCTTACATG ATGACCATGA ACAATGGTAA	1140
AGTTGAAGCA GCAGAAGTTG TAAAACCATA ATAGAAAAAT GTTGAAATAG GGAATGAGCC	1200
TTTGACTCAC TCCCTGTTTC GATATTTAAT ACTCTTCGAA AATCTCTTCA AACTGCGTCA	1260

747

ACGTCGCCTT	GGATTATATA	TGTGACTGAC	TTCGTCAGTC	TTATCTACAA	CCTCAAAGCA	1320
GTGCTTTGAG	CAACCTGCGG	CTAGTTTCCT	AGTTTGCTCT	TTGATTTTCA	TTGAGTATAA	1380
GAACCTATCA	AAAAGTGAGG	GAAAACCCTC	GGAATTATAA	ATAGAAAGAG	TGAATCTTAT	1440
GCTCCAACAA	CTCGTAAATG	GTTTGATTCT	AGGTAGTGTT	TACGCGCTGT	TAGCCCTAGG	1500
ATATACCATG	GTTTACGGAA	TTATCAAGCT	CATCAACTTC	GCCCATGGTG	ATATTTATAT	1560
GATGGGAGCC	TTTATCGGTT	ATTTCTTGAT	CAATTCTTTC	CAAATGAATT	TCTTTGTAGC	1620
GCTTATTGTA	GCTATGCTAG	CGACAGCTAT	TCTTGGTGTC	GTGATTGAGT	TTCTTGCTTA	1680
CCGACCTTTG	CGCCACTCTA	CTCGTATTGC	TGTTTTGATT	ACGGCTATTG	GGGTTTCTTT	1740
CCTATTGGAG	TATGGAATGG	TCTATCTGGT	TGGTGCCAAT	ACCCGTGCCT	TCCCTCAAGC	1800
GATTCAAACA	GTTGATATG	ATTTGGGACC	AATTAGCTTA	ACAAATGTGC	AGTTAATGAT	1860
TTTGGCCATT	TCCTTGATTT	TGATGATTTT	GTTACAAGTC	ATTGTCCAAA	AGACTAAGAT	1920
GGGGAAAGCC	ATGCGTGCAG	TATCAGTAGA	TAGCGACGCG	GCGCAATTGA	TGGGGATCAA	1980
TGTAAACCGT	ACGATTAGCT	TTACCTTCGC	TTTGGGTTCT	GCTCTTGCGG	GTGCGGCTGG	2040
TGTTCTGATT	GCTCTTTATT	ATAACTCTCT	TGAGCCTTTG	ATGGGGGTTA	CTCCAGGTCT	2100
TAAATCTTTC	GTTGCCGCAG	TACTTGGTGG	TATCGGAATT	ATTCCTGGTG	CGGCTCTTGG	2160
TGGCTTTGTG	ATTGGTCTAT	TGGAAACCTT	TGCGACTGCC	TTTGGGATGT	CAGATTTCCG	2220
TGATGCCATT	GTTTATGGAA	TCTTGTTGTT	GATCTTGATT	GTCCGCCCAG	CTGGTATCCT	2280
TGGTAAGAAT	GTGAAAGAGA	AGGTGTAAAC	GATGAAGGAA	AATTTAAAAG	TTAATATTCT	2340
ATGGTTACTC	CTTTTGTTAG	CTGGCTATAG	CTTGATTAGT	GTA CTGGTTT	CAGTCGGAGT	2400
ACTTAATCTA	TTCTATGTAC	AGATTTTACA	ACAAATTGGA	ATTAATATTA	TTTTGGCTGT	2460
TGGTCTCAAC	TTAATCGTTG	GTTTTTCAGG	ACAATTTTCA	CTTGGTCATG	CTGGTTTCAT	2520
GGCGATTGGT	GCCTATGCAG	CAGCTATTAT	TGGTTCTAAA	TCACCAACCT	ACGGTGCCTT	2580
CTTTGGAGCT	ATGCTTGTAG	GGGCTTTGCT	TTCAGGAGCA	GTTGCCTTAC	TTGTGCGCAT	2640
TCCAACCTTG	CGCTTGAAGG	GGGACTATCT	TGCGGTAGCA	ACTCTGGGTG	TTTCTGAAAT	2700
TATCCGTATC	TTTATCATCA	ATGGTGGAAG	CCTTACAAAT	GGTGCGGCAG	GTATCTTAGG	2760
GATTCCTAAC	TTTACAACCT	GGCAAATGGT	TTACTTCTTT	GTCGTGATTA	CAACCATTGC	2820
AACCTTGAAC	TTCTTGCGTA	GCCCAATTGG	TCGTTCAACC	CTCTCTGTTT	GTGAAGATGA	2880
AATCGCTGCT	GAGTCAGTTG	GGGTAAATAC	GACTAAAATT	AAAATCATCG	CTTTTGTCTT	2940
TGGTGCCATT	ACTGCAAGTA	TTGCTGGGTC	ACTTCAGGCA	GGATTTATCG	GGTCTGTTGT	3000

748

ACCGAAAGAT	TACACCTTCA	TCAACTCAAT	CAACGTTTTG	ATTATTGTTG	TATTTGGTGG	3060
ACTCGGTTCC	ATTACAGGTG	CGATTGTTTC	GGCTATTGTT	CTGGGAATTT	TGAATATGCT	3120
TCTCCAAGAT	GTTGCTAGTG	TGCGTATGAT	TATTTACGCT	TTGGCCTTGG	TATTGGTAAT	3180
GATTTTCAGA	CCAGGTGGAC	TCCTTGGAAC	ATGGGAACTG	AGCCTATCAC	GTTTCTTTAA	3240
AAAATCTAAG	AAGGAGGAAC	AAAAC TAATG	GCATTACTTG	AAGTAAAACA	GTTAACC AAA	3300
CATTTTGGTG	GTCTAACAGC	TGTTGGAGAT	GTGACTCTTG	AATTGAACGA	AGGGGAACTG	3360
GTTGGATTAA	TCGGTCCAAA	CGGAGCTGGG	AAAACCACCC	TTTTCAACCT	TTTGACCGGT	3420
GTTTATGAAC	CAAGCGAGGG	AACAGTAACC	CTAGATGGTC	ACCTTTTGAA	TGGGAAATCA	3480
CCTTATAAGA	TTGCCTCTTT	GGGACTTGGA	CGTACTTTCC	AAAATATCCG	TCTCTTTAAA	3540
GATTTAACAG	TTT TAGATAA	TGTTTTGATT	GCTTTTGGA	ACCATCACAA	ACAGCATGTT	3600
TTTACTAGTT	TCTTACGCTT	ACCAGCTTTT	TACAAGAGTG	AAAAAGAATT	AAAGGCTAAA	3660
GCTTTGGAAT	TGTTGAAAAT	CTTTGATTTA	GATGGTGATG	CAGAGACTCT	TGCTAAAAAT	3720
CTTTCCTACG	GACAACAACG	TCGTTTGGA	ATTGTTTCGTG	CCCTTGCTAC	GGAACCTAAA	3780
ATTCTCTTCT	TAGATGAACC	AGCAGCAGGT	ATGAACCCAC	AGGAAACAGC	CGAATTGACT	3840
GAGTTAATTC	GTCGTATCAA	AGATGAGTTT	AAGATTACAA	TCATGTTGAT	TGAACACGAT	3900
ATGAATCTGG	TCATGGAAGT	AACAGAACGT	ATCTACGTAC	TTGAATATGG	CCGTTTAATC	3960
GCTCAAGGAA	CTCCAGACGA	AATTAAGACC	AATAAACGCG	TTATCGAAGC	TTATCTAGGA	4020
GGTGAAGCCT	AATGTCTATG	TTAAAAGTTG	AAAATCTTTC	TGTGCATTAC	GGTATGATCC	4080
AAGCAGTTCG	TGATGTAAGC	TTTGAAGTTA	ATGAAGGAGA	AGTTGTTTCC	CTTATCGGTG	4140
CCAACGGTGC	AGGTAAGACA	ACTATTCTTC	GCACCTTGTC	AGGTTTG GTT	CGACCAAGTT	4200
CAGGAAAGAT	TGAATTTTTA	GGTCAAGAAA	TCCAAAAAAT	GCCAGCTCAG	AAAATCGTGG	4260
CAAGTGGTCT	TTCAACAAGT	CCAGAAGGAC	GCCACGTCTT	TCCTGGCTTG	ACTGTTATGG	4320
AAAATCTTGA	AATGGGAGCT	TTCTTAAAGA	AAAATCGTGA	AGAAAATCAA	GCTAACTTGA	4380
AGAAGGTTTT	CTCACGCTTT	CCTCGTCTTG	AAGAACGGAA	GAACCAAGAT	GCAGCCACTC	4440
TTTCAGGGGG	GGAACAACAA	ATGCTTGCCA	TGGGACGCGC	CCTCATGTCA	ACACCAAAAC	4500
TTCTTCTTTT	AGATGAACCA	TCAATGGGAC	TTGCCCAAT	CTTTATCCAA	GAAATTTTTG	4560
ATATCATTTCA	AGATATTCAG	AAGCAAGGAA	CAACGGTCCT	CTTGATTGAA	CAAAATGCCA	4620
ATAAAGCACT	TGCAATCTCT	GACCGAGGAT	ATGTACTGGA	AACAGGGAGA	ATCGTCCTAT	4680
CAGGAACAGG	AAAAGAACTC	GCTTCATCAG	AAGAAGTCAG	AAAAGCATAT	CTAGGTGGCT	4740
AAAACAATCC	AGTGGATTGT	TTTAGTCGGC	AGATGGAGAT	TACGAAGTAA	TCATCAATAT	4800